REPORT RESUMES

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EVALUATION OF COUNSELING TREATMENTS WITH UNDERACHIEVING HIGH SCHOOL STUDENTS.
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DESCRIPTORS- *GUIDANCE COUNSELING, *UNDERACHIEVERS, COUNSELING GOALS, *HIGH SCHOOL STUDENTS, GUIDANCE SERVICES, ABILITY GROUPING, STUDENT ADJUSTMENT, ACADEMIC FAILURE, SMALL GROUP INSTRUCTION, GROUP COUNSELING, GRAND FORKS, NORTH DAKOTA

COUNSELING TREATMENT METHODS WERE EVALUATED TO DETERMINE THEIR EFFECTIVENESS IN IMPROVING ACADEMIC AND PERSONAL ADJUSTMENT OF UNDERACHIEVING HIGH SCHOOL STUDENTS. THE PARTICIPANTS INCLUDED OVER 200 MEASURED UNDERACHIEVERS FROM GRADES 10-12 AND 16 COUNSELORS. THE STUDENTS WERE RANDOMLY ASSIGNED TO ONE OF FIVE TREATMENT CONDITIONS--(1) INDIVIDUAL COUNSELING, (2) GROUP COUNSELING, (3) SMALL GROUP STUDY SKILLS INSTRUCTION, (4) INDIVIDUAL AND GROUP COUNSELING COMBINATION, AND (5) A CONTROL CONDITION OF NO TREATMENT. TO ASSESS CHANGES OCCURRING BY EACH CONDITION, SEVERAL MEASURING INSTRUMENTS WERE USED. AN ANALYSIS OF VARIANCE WAS EMPLOYED TO EVALUATE TREATMENT EFFECTS. SIGNIFICANT DIFFERENCES WERE INDICATED ON THE EFFECTIVENESS OF DIFFERENT TREATMENTS. STUDENTS IN THE INDIVIDUAL COUNSELING AND STUDY SKILLS GROUPS IMPROVED MORE THAN THOSE IN THE OTHER GROUPS IN GRADE POINT AVERAGE AND STUDY HABITS. ON THE CRITERION OF PERSONALITY CHANGE, THERE WERE NO SIGNIFICANT DIFFERENCES BETWEEN TREATMENTS. A NEED FOR HIGH SCHOOL COUNSELORS TO FIT TREATMENTS TO GOALS AND NEEDS OF INDIVIDUAL STUDENTS WAS INDICATED. (RS)

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EVALUATION OF COUNSELING TREATMENTS WITH UNDERACHIEVING HIGH SCHOOL STUDENTS

Cooperative Research Project No. 1263

Betty J. Bosdell
State College of Iowa

Research completed at
University of North Dakota
in cooperation with
Central High School

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THE PROBLEM

A basic objective of education in America has long been to assist all students to develop their unique potentialities to a maximum degree. Since A. M. Conklin (1931) published the results of his earlier studies much has been added to the literature concerning youth who function below their levels of capabilities. In the past decade underachievers have received renewed attention from educators and psychologists. With the present and anticipated shortages of trained technological manpower highlighted by the publication of the manpower studies by Wolfle (1954), the major focus of this attention has been upon the gifted underachiever whose talents may potentially be loss to the national effort.

The National Defense Education Act passed in 1958 emphasizes the responsibility of the school to the academically talented. Current popular and professional literature decries the shortage of trained scientists, engineers, mathematicians, etc. often placing the responsibility for these shortages upon the school.
The concern for the able learner and the early identification of the intellectually gifted, as evidenced by several large projects (eg. Project Talent; N. C. A. Project for the Identification, Guidance, and Motivation of Superior Talented Students; Talented Youth Project, Horace Mann-Lincoln Institute; N. E. A. Project on the Academically Talented Students, etc.) relates directly to a concern for meeting the manpower needs of the nation, specifically through the conservation and utilization of superior talent.

The present study contends that the needs of the nation can best be met through helping youth at all ability levels to realize their potential. It does not minimize the waste of talent as a result of the underachievement of the gifted, but rather emphasizes the waste of talent of the underachievers at all ability levels. Terman (1958) among others has emphasized the importance of counselors'encouraging youth at all levels of ability. This study concerns itself with underachievement at all ability levels in the secondary school.

Underachievement is regarded as the result of a composite of factors which are most easily ascertainable through the discrepancy between academic ability and academic achievement. Although it is realized that all underachievement will not be evidenced through such a discrepancy criterion, in prior research on school underachievement this has been the commonly accepted definition.

The school counselor has been regarded as a crucial person in the identification and conservation of talent at the secondary school level. In the report of the Conference on Testing and Counseling sponsored by the American Association for the Advancement of Science (1958) it was estimated by the U. S. Office of Education and the American Personnel and Guidance Association that twice as many counselors are needed as are now available at the secondary school level. This shortage of counselors was emphasized by Irwin (1960) in his recent popular article. It would seem that some consideration needs to be given to how the counselor's time can best be spent in the school. The practical problem of how counselors can best help underachieving students becomes a crucial one when the amount of time available for any one segment of the student population is considered. The present study is designed to compare the effectiveness of different types of treatments in working with underachieving senior high school students.

The literature is replete with both experimental and descriptive studies relative to ways of working with students. The following condensation of data is utilized to provide the background for the present problem.

Group counseling as a preferred method of treatment for youth has been investigated by Bills (1949), Caplan (1957), Ackerman (1955), Boenheim (1957), McCormick (1953), Bilovsky (1953), and Stockey (1961) among others. The application of group counseling to underachieving high school students has been the focus of attention of Broedel (1958), Sister McCarthy (1959), and Ohlsen and Proff (1960). Effectiveness of the group counseling experience as judged by the criteria specific to each study ranged from non-significance to some improvement. The direction of change tended to be in the positive direction with some clients showing improvement while others showed no improvement on such variables as grade point average, self concept, personality characteristics, peer ratings, etc. Although the majority of the studies did not report statistically significant differences between pre and post measures, the majority of the authors concluded that group counseling has helped some adolescents.

Individual counseling as a method of working with high school students has a long history of research. Investigations, among others, have been made by Fahey and Waller (1941), Rothney and Roens (1950), Teuber and Powers (1953), Patterson (1957), Weeks (1957), and Rothney (1958) of the effectiveness of individual counseling. Merenda (1957), Serene (1953), Stasek (1955) and Calhoun (1956) have been specifically concerned with evaluating the usefulness of individual counseling with underachieving secondary students. Results from the above studies tend to range from no improvement to significant improvement from pre to post or pre to followup periods. Changes following individual counseling tended to be in the positive direction on the criteria employed by each specific study, with improvement noted in such areas as self-concept, school record, occupational adjustment, etc. The investigators who concerned themselves with underachievers concluded that individual counseling is an effective means of aiding underachievers in improving their academic adjustment.

Study skills instruction as a method of aiding youth has received its major attention in college settings. Entwisle (1960) reviewed the results published from some 22 different study skills courses concluding that academic improvement tended to follow instruction in study skills. Sheldon and Landsman (1950), Tresselt and Richlin (1951), and Shaw (1955) experimentally evaluated the effectiveness of study skills instruction. Improvement, as measured by academic achievement, ranged from non-significance to significance in these evaluative studies. The investigators concluded that study skills instruction tended to help the student improve in his academic performance.

Comparative studies between two or more different methods of treatment have been relatively infrequent. Froelich (1958), Marx (1959), and Baymur and Patterson (1960) compared individual counseling with group counseling with the latter also using a one motivational interview comparison group. Sheldon and Landsman (1950) compared group counseling to study skills instruction, and Shaw (1955) used individual counseling with study skills instruction.

The paucity of experimental evaluations of the comparative effectiveness of different treatment procedures is especially applicable to the underachieving high school student. Yet for the best utilization of counselor time and for guidelines for counselor education programs such information is essential.

The present study evaluates the effectiveness of four methods of treatment: (1) individual counseling,

(2) group counseling, (3) study skills instruction, and (4) group and individual counseling as compared with each other and with a control group. Each of these methods has demonstrated varying degrees of success with high school students.

The afore mentioned studies relating to group, individual, and study skills were most frequently done in the college setting. Those that were mentioned as being completed in the high school setting used as their sample a small group of students drawn from the total population of underachievers in the secondary school. The counselor in these studies was most frequently a person trained at the doctoral level or a doctoral candidate working on his degree. In some of the comparative studies the same individual doing the experiment also served as counselor for all groups. It was felt that the above conditions were not typical of the high school setting thus limiting the usefulness of generalizations from the results.

The design of the study is such that a typical secondary school setting is utilized, using as the sample the total population of underachievers at each grade level in the participating high school. The regular school counselors and other counselors trained at levels typically found in the secondary school serve as counselors for all treatment groups. All counselors work within the school schedule and setting and are identified as school counselors.

Various definitions can be found in the literature for each of the treatment conditions. For the present study the following serve as definitions for each of the treatment conditions.

Individual counseling is a one-to-one relationship in which the counselor working with a student helps him

to understand himself and his problems, helping him to learn more productive ways of solving his problems.

Group counseling is where the counselor works with a small group of students (6-9) and by helping them to talk over their concerns and problems helps them to understand themselves and others, learning better ways of handling their problems.

Study skills instruction is where the counselor works with a small group of students (6-9) helping them to learn more effective study habits and study skills and to apply these to their school work.

The treatment "combination" refers to those students who meet with their counselor for individual counseling interviews and in the group counseling setting.

The control group are those students who complete the same evaluative instruments, etc., but receive no treatment, remaining in their study halls.

MAJOR OBJECTIVES

The major objective of this study is to ascertain the relative effectiveness of different treatment procedures in improving academic and personal adjustment of underachieving high school students.

Specifically the following questions will be answered:

1. Are treatment procedures related to improvement in academic and personal-social adjustment?
2. Are there differences in the relative effectiveness of treatment procedures related to improved academic and personal-social adjustment?
3. Are there differences in terms of improvement when data are analyzed according to grade, sex, and ability?
4. Do underachievers differ from "normals" in personality characteristics?
5. Do counselors' verbal response patterns differ for individual and group counseling?
6. Are there differences between clients' verbal mode of responses in individual and group counseling?
7. What problems do underachievers discuss?
8. Do the problems discussed by underachievers differ from treatment to treatment?

RELATED RESEARCH

The review of the research literature is divided into two major categories: (1) research which is directly related to the major problem of the study and (2) that which is related to the sub-problems. Literature pertinent to the major problem was reviewed in the following areas: (1) group counseling, (2) individual counseling, (3) study skills instruction, and (4) comparison of treatment conditions and multiple treatments. Four additional areas were also reviewed as being applicable to the sub-problems: (1) characteristics of underachievers, (2) problems of adolescents, (3) interaction process analyses for counselor and client responses and (4) general research related to underachievement. These latter four areas will be discussed with the presentation of the procedures and findings for each of the specific sub-problems.

Research relating to the major problem will be discussed in this section of the report.

Group Counseling

In the Report to the World Federation for Mental Health (1952) group therapy (counseling) is discussed as a uniquely valuable treatment method with special applicability for working with adolescents. In recent years there has been an increase in the number of studies which examine the effectiveness of group counseling with adolescents.

Shulman (1951) worked with nineteen adolescent boys selected by school personnel to receive group counseling. Each boy attended two to thirteen sessions in an open group. Although no statistical treatment of change was reported he concluded that five had not improved (three of these attended only two meetings), five had quit school but had shown improvement in relationships with teachers and parents, six had shown definite improvement in home and school behavior and academic achievement, and the remaining three improved in their interpersonal relationships but showed no scholastic improvement.

Boenheim (1957) felt that group therapy would be especially valuable for shy introverted adolescents who lacked self-confidence and social confidence. He worked with two groups of middle class adolescents (five girls, three boys and three girls, four boys) who were above average in ability. Following the therapy experience he was able to obtain follow-up information on eight of the participants. Follow-up interviews were held with six with definite improvement noted in five and slight improvement in the other. Improvement was noted in better interpersonal relationships with adults and peers and in the lessening of anxiety and depression. Information available on the other two indicated that one had required additional treatment, and the other one had been hospitalized during the group sessions.

Ackerman's (1955) group was an open group which varied in size from session to session from five to eighteen. He concluded that optimum size for effective participation was eight to ten. He reported that the group counseling experience had been particularly successful in helping the participating adolescents through modification of behavior, providing for catharsis, and providing for reality testing.

Caplan (1957) worked with thirty-four junior high boys considered to be school discipline problems. The boys were divided into four groups (two experimental, two control) with the experimental group meeting once a week for group counseling. Citizenship ratings and congruence between self and ideal self concepts showed significant improvement for the experimental group. The experimental group also improved in academic achievement.

Gersten (1951) working with a group of juvenile delinquents concluded that the group receiving group counseling improved significantly on such variables as achievement test scores and emotional and social maturity when compared with the control group.

Broedel (1958), Sister McCarthy (1959), Ohlsen and Proff (1960) and recently McDaniel and Johnson (1962) have reported the results of their studies with underachieving adolescents in school settings.

McDaniel and Johnson (1962) identified fifty eighth grade students with group intelligence scores over 120. Grade point averages and teacher judgments were used to identify the achievers and underachievers. From this pool five boys and five girls were drawn for the counseling groups for the project which met once a week for twelve sessions. In comparing first quarter (before) and fourth quarter (end of year) marks the investigators noted some improvement in academic achievement and citizenship marks.

Sister McCarthy (1959) worked with bright underachieving ninth grade boys. Twenty-four boys were divided into four groups (two experimental, two control) with the experimental groups receiving group counseling. There were no significant differences between the groups on the post measures following counseling.

Broedel (1958) and Ohlsen and Proff (1960) reported the results of group counseling with twenty-nine gifted ninth grade underachievers. Broedel reported the results of the first phase of the study involving two experimental groups and two control groups. Ohlsen and Proff reported the combined results of the total investigation where the two control groups later became experimental groups. Broedel reported no significant differences between the groups on the majority of the evaluation criteria, but did report a significant difference in acceptance of self by the experimental groups. Experimental groups also showed significant differences on scores between post and follow-up achievement tests. Ohlsen and Proff reported that on the follow-up measures positive changes were noted for all groups in achievement test scores, self acceptance, and interpersonal relationships. Grade point averages for experimental subjects tended to decrease during counseling with no significant differences between pre-post and follow-up periods.

Although the majority of the investigators of all reported related research failed to find significant improvement on all the variables they used for measuring change they did conclude that group counseling is a valuable method of working with adolescents toward improved academic and personal-social adjustment. These experimental studies showed a trend toward improvement with varying degrees of significant results. Improved self acceptance and self concept seemed to be the most general findings. These investigations tend to substantiate the hypothesis that group counseling has merit as a method of helping selected underachieving adolescents at the junior high level. Notable is the lack of such experimental studies on group counseling with underachieving senior high school students.

Individual Counseling

The effectiveness of individual counseling with adolescents has been more thoroughly studied than any other form of counseling in terms of both experimental and survey evaluations. Both in and out-of-school adolescents have served as subjects, with in-school studies being conducted at the college and secondary school level.

Teuber and Powers (1953) reported the results of follow-up of 325 underpriveleged boys who over an eight year period had received individual counseling and/or guidance. They were compared to a control group matching each individual on age, intelligence, school grade, delinquency rating, ethnic background, etc. Treatment lasted from two to eight years with a median duration of four years, two months. They reported that there were no significant differences between the groups on the criteria of appearances in court and offenses committed by the boys. However, it was felt by the investigators that that program had been beneficial for some of the boys.

Patterson (1957) compared counseled with non-counseled industrial school students. His study revealed no significant differences between the two groups in improvement on the criteria of grades and attendance.

Sherrifs (1949), Guthrie and O'Neill (1953), and Faries (1955) worked with college populations. Sherrifs employed a one counseling interview with thirty-four representative students from a class of 257. Although the experimental group did better on a course examination four weeks after the interview there were no significant differences at the end of the course ten weeks later. Guthrie and O'Neill used three groups: an experimental group, a control group which met but was not counseled, and a control group which was ignored. No differences were found between the three groups following one semester of counseling. Faries' sample consisted of a matched group of 140 freshmen. With graduation from college as a criterion for success there was a significant difference between counseled and non-counseled students, with seventy-seven per cent of the counseled students and fifty-one per cent of the non-counseled students graduating from college.

Ewing (1954), Williamson and Bordin (1940), Berdie (1958) and Butler (1960) all evaluated the effectiveness of individual counseling reporting results from large scale university counseling center projects. Ewing and Butler found that counselors showed improvement on self-concept changes. Williamson and Bordin reported that in follow-up evaluation by the client and by judges the counseled group (using matched pairs) was found to be better adjusted and to be making better grades. Berdie reported the results of a research program involving eight counselors and 100 counselees with twenty of these serving as controls. Pre and post measures revealed significant differences when a superficial statistical analysis was made; however, when more rigorous and complete statistical controls were used, there were no significant differences. From these and earlier studies he concluded that in evaluating brief term counseling specific behavior changes should be used as criteria rather than changes on more general personality characteristics.

Several notable reports have appeared concerning the effectiveness of counseling at the high school level. Rothney and Roens (1950) reported the results of a longitudinal study of counseled and non-counseled students. Junior high school principals selected for the experimental group those students who they felt were superior and needed help. The students for the control group were selected later. Students were followed through five years of secondary school. Using a matched pair design the authors reported that the counseled students made significant gains in academic achievement, more went to college, had fewer curricula changes, and had less subject failures. Student reported outcomes revealed that for those students who went into the job market the counseled group reported better on-the-job adjustment than the non-counseled group.

Caravello (1957) studied the post high school records of students. He divided them into three groups, those counseled by guidance specialists, those seen by teacher-counselors and a non-counseled group. He found there were no significant differences in employment status but significantly more of the counseled students were pursuing post high school education. Approximately thirty per cent of the students counseled by the guidance specialist remembered this as helpful as compared to less than ten per cent of the teacher counselor group.

Using a movement scale to measure effectiveness of counseling McDonald (1955) reported the results of a study involving 100 junior and senior high school clients. He reported that fifty-nine per cent of the cases had improved on this scale with thirty-three per cent showing no change and eight per cent negative change.

Young (1955) reports the result of a study which required all potential school drop-outs to visit the counselor. The drop-out rate was reduced approximately from twenty per cent prior to the counseling program to approximately thirteen per cent after this requirement was instituted.

Concerning themselves specifically with low or underachievers, Fahey and Waller (1941), Serene (1953), and Applbaum (1961) reported their results.

Fahey and Waller (1941) identified low achievers using a discrepancy ratio. Results showed significant change on reducing the disparity between ability and achievement when counseled students were compared with a comparable control group.

Applbaum (1961) examined the records of 1,967 students in the tenth grade identifying 303 students as gifted underachievers. He interviewed 277 of these students attempting to ascertain causes for underachievement. After his interview with each of these students he concluded that the interview had made the underachievers aware of their potential, but felt additional contacts were needed to convince the underachievers they needed to develop and use their abilities.

Serene (1953) using a technique referred to as motivational counseling worked with 124 underachievers over the course of a year. The eleventh grade students who served as experimental subjects showed an increase in correlation between aptitude and achievement from .56 to .76. The tenth and twelfth grade students who served as controls showed no similar gains.

The results of most of the above studies on the effectiveness of individual counseling tend to present a more hopeful picture than did the research on group counseling. Although a few studies reported no significant differences on the criteria measures, most studies tended to show a significant difference between counseled and non-counseled students. Improvement was noted on such variables as self concept, interpersonal adjustment as rated by judges and by clients and academic achievement. Some counselees showed no improvement and in a few instances negative change, however these were in a minority.

Study Skills

Instruction in study skills as a method of working with students who are in academic difficulty has been most fully investigated at the college level. In the 1930's and early 1940's many research studies and reports on the effectiveness of study skills instruction were published. Since the late 1940's relatively fewer of these studies are found in the literature. The experimental studies reviewed here are typical of those found earlier in both procedure and results.

Entwisle (1960) reviewed twenty-two evaluations of study skills courses. From these she concluded that some improvement in academic achievement usually follows study skills instruction. She noted that course content and duration were not significantly related to outcomes of study skills courses in terms of improvement.

Barbe (1952) and Ranson (1955) both investigated the effectiveness of reading and study programs with college students. Both reported improvement in grade point average for those students who received help.

Turrell (1937) worked with eleventh graders and college freshmen in a junior college setting. Experimental subjects were randomly selected from a required orientation course and then matched. He compared grade point ratios for men, women, curriculum, and ability. Although grade point averages for the experimental group tended to show improvement, they were not always statistically significant. Women improved more than men with this type of help.

DiMichael (1943) evaluated the effects of a how-to-study course with 192 ninth grade pupils equally divided between experimental and control subjects. From his findings he concluded that low ability students did not profit from study skills instruction. The average ability group profited more than the high ability group on the criterion of improved grades.

Tresselt (1951) worked with forty-eight low achieving students evaluating the effectiveness of a study methods course as related to the variables of intelligence, adjustment and study skills. He found that grade point average and study skills improved, with the degree of improvement varying with different combinations of the variables. Poor study techniques was the easiest to improve. Poor adjustment was found to be related to less improvement.

Shaw (1955) evaluated the effectiveness of a university study skills course using eight groups of students (four experimental, four controls). The students received both study skills instruction and individual counseling. Improvement evaluated by an increase in grade point average was found significant at the .01 level for two groups, .05 for one group and the .10 for the remaining group.

In summarizing the results from investigations of study skills instruction, it is evident that the majority of these report improvement for participants in grade point average. This improvement was noted to be more prevalent under some conditions than others. Again it was notable that the vast majority of these studies had been completed with college students with few of them being concerned with students at the secondary school level.

Comparative Studies

The majority of these studies have compared two treatment conditions, usually individual counseling with group counseling. In a few study skills instruction or one interview motivational/information sessions have been compared with counseling.

Sheldon and Landsman (1950) compared study skills instruction group with group counseling at the college level. The counseled groups showed significantly more improvement than the study skills groups on the criterion of grade point average. A follow-up study indicated fewer dropouts were found from the counseled group than from the study skills group.

Hoyt (1955) evaluated the effectiveness of group and individual guidance. Criteria of effectiveness were the satisfaction with, constancy and realism of vocational choice, and the appropriateness of certainty of choice. The sample included sixty college freshman volunteers (fifteen individual counselees, thirty in group counseling, fifteen as controls). Both individual and group counseling clients were significantly more certain of their choice, more satisfied with and more realistic in their choice than controls. No differences were found between group and individual clients.

Bilvosky and associates (1953) reported the findings of a study comparing the effectiveness of individual and group counseling with twelfth grade boys. Criteria for improvement was the realism of vocational choice as rated by judges. Their results indicated that there were no differences between the boys receiving individual and group counseling.

Froelich (1958) compared the effectiveness of individual counseling (N=17) and group counseling

(N=25) with high school seniors. On the criterion of increased accuracy in self-ratings, group counseling produced a significant increase while individual counselees did not show significant improvement.

Davis (1959) worked with thirty students from the lower fifty per cent of juniors on citizenship ratings. Holding counselor time constant the ten individual clients had two sessions each and the group met for twenty sessions. The controls were not seen. On the criterion improved citizenship both group guidance and individual counseling clients showed significant improvement. Group clients showed significantly greater improvement than the individual clients.

Stockey (1961) compared the effectiveness of group counseling, individual counseling and employment with adolescent boys who had scored high on a hostility scale. Subjects were randomly assigned to three groups, control (N=15), individual (N=16), group (N=14) with sixteen being in the employed group. Individual and group clients showed a consistent pattern of improvement with little change for either the control or employed groups. Although he had hypothesized that group counseling would be most effective he found no significant differences between group and individual counseling with individual counseling slightly more effective than group counseling.

Marx (1959) used four groups of college freshmen, two experimental groups (1) individual counseling and (2) group counseling and two control groups (1) not invited to participate and (2) invited but not responding. On a criterion of improved grades the only significant result was obtained when individual counselees were compared to control 2.

There was a trend for individual counselees to show more improvement than group counselees.

Baymur and Patterson (1960) divided thirty-two eleventh graders into four matched groups. Treatments were individual counseling, group counseling, one motivational interview and a control group. Counseled clients showed improvement when compared to the control and one motivational interview group. Individual counseling resulted in more positive changes in self-concept and group counseling resulted in more improvement in grade point averages. None of the results were statistically significant.

Comparative studies such as the ones cited in this review have tended to produce conflicting results when group and individual counseling are compared. In the majority of instances there have been no significant differences between the treatments. The wide variation in what was defined as individual counseling and group counseling might account for some of the contradictory results between the studies. Most of the comparative studies have shown that counseled students improved more than did non-counseled students, although there were no significant differences between individual and group counseling.

Summarization

In considering prior research several characteristics seem to be evident in many of the studies. In many the controls were picked after the experimental sample was drawn, in some instances a year or more later. Most studies have had one counselor and that person has served as counselor for all experimental conditions. Whether the assumption of equal interest and equal skill in each type of treatment is valid or not, this assumption has been made. The majority of the studies have used as their sample college students and of those concerned with high school youth few have been completed within the secondary setting. The counselor has usually been an individual trained at the doctoral level. Studies on underachievement have emphasized and focused on the gifted underachiever. Clients in the experimental samples for the most part have been those who volunteered or sought assistance.

Criteria most frequently employed have been measures of self-concept changes, interpersonal behavior, citizenship ratings, vocational choice adjustment, and grade point averages. Where multiple criteria have been used no consistent significant improvement has been found on all variables for all treatments. Where significant results have been found these have been for the most part studies employing one criterion. Several of the studies mentioned the difficulty of assessing the motivation of clients. Both group counseling and individual counseling have been shown to be effective when working with adolescents. Study-skills instruction has demonstrated its value as a possible method of improving achievement. A single interview has generally been found to be ineffective in working with adolescents in producing more than temporary change in behavior.

The very fact that a wide diversity of methods and samples have been used in the various treatment conditions with similar trends in improvement gives some hope that these methods may be applicable for senior high school youth who are underachievers.

The present study extends the research in counseling and underachievement by comparing the effectiveness of individual counseling, group counseling and study skills instruction in working with underachievers of all ability levels in senior high school. The additional treatment of a combination of individual and group counseling has been added for a total of four experimental treatments.

In this study an attempt has been made to control some of the aforementioned characteristics of prior research in hopes that the results of the study will be more generally applicable to the typical secondary school setting.

PROCEDURES

The study was conducted in a public senior high school in a small city in the upper midwest. The school had had a counseling and guidance program with one full time counselor for some years and had recently increased their guidance staff to two full time guidance counselors. In addition to these counselors the Dean of Girls and the Assistant Principal also were responsible for some general guidance duties. Guidance counseling was an accepted part of the total school program.

The criterion applied to all the counselors' procedural questions during the study was "what is usually done in the school in such an instance as this?" Since the project counselors were regarded and in some instances were part of the school counseling staff this criterion was necessary. It also concurred with the original experimental design and purposes of the study.

Sample

The sample was the population of all underachievers enrolled in a public senior high school grades 10-12. The school served the total population of a city of approximately 40,000. For the purpose of this study underachievers were defined as those students who had a two decile or more discrepancy between their mental ability group test scores on the California Mental Maturity Test and their academic achievement as measured by grade point average. The records of all students who would be enrolled in the high school were examined during the summer prior to the opening of school, with all students who met the criteria given above designated as underachievers. Originally 232 students were identified as underachievers. Twenty-one of these previously identified underachievers did not return to school and four additional ones dropped out of school before the pre-testing the second week of school. Thus the study population was 207 The characteristics of the population were approximately half seniors, and one quarter juniors and sophomores. The ratio of boys to girls was approximately 3:2. Forty-four per cent had declared a college preparatory curriculum with only seven per cent declaring themselves in either the business or vocational curriculum. The remaining forty-nine were enrolled in the general curriculum which tends to be more similar to a college preparatory than to the business or vocational curriculum. Intellectually the underachievers ranged from a group I.Q. of 90 to 139 with a mean I.Q. of 109. The school mean for that year was 106. The discrepancy between ability and achievement ranged from 20 to 75 with a mean discrepancy of 38.9. There was one student who had a discrepancy of 13 and who was included since she had been identified by the guidance director as an underachiever who met the criteria.

Since the population being studied was composed of underachievers drop-outs during the course of the study were expected.

A total of sixteen different counselors participated in the study during the year. The counselors all ranged from meeting the standards for temporary certification to meeting those for permanent certification. The counselors had completed from twelve graduate hours to a master's plus thirty hours with the majority of the counselors having between 20 and 40 graduate hours. All of the counselors operated in the school as part of the on-going counseling and guidance program, being responsible to the Director of Guidance in the school. The counselors were identified as part of the school staff and were regarded as such by both students and staff. The counselors represented different frames of references with some identifying themselves as essentially non-directive and others feeling that they were either eclectic or directive. No single verbalized orientation seemed to be characteristic of the group. Some of the counselors were volunteers, some were regularly assigned to the school by the Board of Education and some were enrolled in a university course to enable them to receive credit for the counseling they did in the high school setting. Counselors operated independently each working as he thought best with his clients. Counselors were free to discuss their counseling with each other or with the Guidance Director or the Universtiy coordinator if they wished since they functioned as regular school counselors.

Assignments to Treatments

Since all students in the population were available and all periods of all days were available for treatment, a four stage randomization design was used: (1) The types of treatments were randomized into the time and day of week each treatment appearing at six different times during the week, (2) Those periods which would serve as treatment periods and from the which the treatment sample would be drawn for each semester were randomly selected, (3) Eight subjects were randomly selected from the students available for that period, and (4) Counselors who were available for that period were randomly assigned to each treatment. The study was replicated during the second semester using the remaining students. A table of random permutations was used in the randomizations.

Description of Treatment Conditions

The five treatment conditions which were defined earlier were individual counseling, group counseling, combination (group and individual), study skills instruction, and controls. There were three groups of six to eight students assigned to each of the five treatments during first semester, for a total of twenty to twenty-four in each treatment condition. During the second semester because of the drop-out rate five to six students were in the three groups for each treatment condition with a total of sixteen to eighteen in each treatment.

Those students in group counseling were seen once a week for a class period (fifty-five minutes); those in study skills groups were seen once a week for a class period, those in individual counseling were seen once a week for a half period (twenty-five to thirty minutes) counseling session, and those in combination (individual and group counseling) met with the group once a week and with their counselor once a week for an individual session. The control group remained in their study halls. The regular school schedule and school calendar were followed. The duration of treatment was a maximum of one semester.

Instruments

To assess change several measures were used. Pre and post evaluation of pupils utilized the grade point average obtained from school records (using only graded courses, excluding art, music, chorus, band, etc.). Grade point average for pre was based on the prior year's average and the post was based on the grade point average for the experimental year. To measure the students' study habits the Brown-Holtzman Survey of Study Habits and Attitudes (1956) was used. Personality variables were measured by the Heston Personal Adjustment Inventory (1949) and the Minnesota Counseling Inventory (1957). The difference between pre and post measures were used to determine improvement. On the Brown-Holtzman (B.H.) and the Heston Personal Adjustment Inventory (H.P.A.I.) improvement was indicated by higher scores. On the Minnesota Counseling Inventory (M.C.I.) improvement was indicated by lower scores.

The same instruments were also used for the follow-up period during the spring semester of the following year for those students who were still enrolled in the high school setting. Originally plans had been made to try to retest the seniors who had graduated. However, with new counseling staff at the high school and the difficulty in locating many of these students only the sophomores and juniors who had been in the experimental and control groups were retested.

The students who participated in the project also completed two other instruments. These were a one-page checklist on which the student responded to items designed to tap his satisfaction with his treatment condition and his counselor and the Sim socio-economic scale. From the school records the additional information recorded for each student were his grade, age, sex, achievement test scores, and the curriculum he was following: general, college preparatory and business/vocational.

The counselors who participated in the project kept interview notes as they would have in a regular school setting, each using his own general form.

Each counselor also responded to a one page questionnaire scale designed to measure the counselor's satisfaction with his client and the counseling situation.

Analysis of Data

The major problem of the study was to compare the effectiveness of various treatment conditions on the pre and post variables related to academic achievement, study habits, and personality variables. The intact groups within treatments analysis of variance design as given by Lindquist (1953) was used in the analysis of data. The .05 level of significance was adopted for all statistical tests in this experiment. An analysis of variance for each of the variables measured by the evaluative instruments was used. When a significant F was obtained, treatment means were tested for significance by computing the critical difference. The treatments were ranked by their means to obtain an estimate of relative potency. Summary tables for all statistical tests are in the Appendix.

The specific statistical tests applied to the data of the sub-problems are described with the presentation of the procedures and results for each of these problems. The major tests of significance used were analysis of variance, t tests, chi squares, binomial test, and Tukey's test for significant gap.

Distinctive Features of the Present Study

The present study was unique in several ways from those previously published in the literature.

1. The entire population of underachievers at all grade levels in a senior high school were studied. The population included a wide range of intellectual ability.

2. The study compared several treatments as to their relative effectiveness rather than concentrating upon any one treatment method. To date the combination of treatments used has not been utilized in a comparative study.
3. The experimental program was assimilated into the regular on-going school guidance and counseling program. The existing facilities were utilized and in all ways possible the standard of what is typical for the regular school program has served as the guideline for decisions.
4. Counselors were at different levels of training ranging from pre-masters to those holding the masters in guidance and counseling. The school's regular counselors were responsible for approximately half of the treatments. Other counselors operated as part of the counseling staff of the school. In many of the recent studies the counselors were identified with a source other than the school and represented higher levels of training than usually found in most high schools. For this reason no doctoral counselors were used, since personnel trained at this level are found infrequently in the majority of the high schools.
5. Randomization of counselor assignment to treatments made it possible to study counselor and client variables according to the type of treatment. The counselor did not choose the type of treatment he most preferred nor the type of clients

he might have preferred. Since high school counselors are expected to conduct group counseling and study skills groups in different schools the criterion of the usual school situation applied. It was felt that the advantages surpassed the disadvantages of such a procedure.

6. Since the study concerned a total population of underachievers certain analyses of data were possible that had not been utilized prior to the study. The data were analyzed comparing the treatment effects as related to grade and sex. Also a high and low ability group were compared. Comparisons were made on the variables of achievement, study habits, and personality characteristics.

In summary, it was felt that the approach to the general problem of working with underachievers in the senior high school as utilized in this study was unique in terms of personnel used for the treatments, types of treatments being used, the use of a population and the research design of randomization. Because it was conducted in a regular school setting it was felt that generalizations from the study might be more applicable to other high school settings.

COMPARATIVE EFFECTIVENESS OF DIFFERENT TREATMENT CONDITIONS WITH UNDERACHIEVING HIGH SCHOOL STUDENTS

One of the most important problems facing counselors in high schools today is how to help those students who are not doing as well as they should. The major problem of this study was directed toward an experimental evaluation of the comparative effectiveness of four different methods of working with underachieving high school students as compared to each other and to a control group.

The rationale, review of related research, design of the study, and the procedures followed have been presented in the preceding sections of this report.

Briefly, a total population of underachievers at the senior high school level (tenth, eleventh, twelfth grades) were identified on the criterion of at least a two decile discrepancy between ability and achievement. A four stage randomization design was used to assign underachievers and counselors to the five experimental conditions: individual counseling (Ind.), group counseling (Group), combination of individual and group counseling (Comb.), study skills instruction (SS), and control.

Pre-post measures were obtained from the underachievers on the Minnesota Counseling Inventory (MCI), Heston Personal Adjustment Inventory (HPAI), Brown-Holtzman Survey of Study Habits and Attitudes (BH), and on grade point average (GPA).

A discrepancy score between pre and post measures was computed for each subject. To test for significant differences between treatments, the mean differences were analyzed using an analysis of variance, groups within treatments design (Lindquist, 1953). When a significant F was obtained the significance of the difference in means for individual pairs of treatments was tested by computing the critical difference for the reported significance level of the F.

In addition to the statistical analysis, the means for each treatment were examined for indications of any consistent trends regarding the direction or degree of change.

Results

An analysis of variance was computed for each variable on the Minnesota Counseling Inventory (MCI) and the Heston Personal Adjustment Inventory (HPAI). A separate analysis for each variable was computed since each variable measured a discrete trait. Results of these analyses may be found in Appendix A. The summary tables for the analyses of the personality variables indicate there were no significant differences between the means of the treatment groups.

To ascertain whether any trends existed, the mean for all students in each treatment was computed for each variable. On the MCI, scores over twenty indicate change in the negative direction, while scores under twenty indicate change in the positive direction. The reverse is true for the HPAI and B.H. Positive scores (i.e. scores over twenty) indicate improvement while scores below twenty indicate movement in the negative direction. For grade point averages positive movement is indicated by scores over 200, negative below 200.

Table 1 indicates that, in general, the clients in the three counseling treatments showed consistent movement in the positive direction. The means for combination treatment indicate it was slightly more effective than either individual or group counseling alone. Study skills clients showed only a slight trend toward improvement. Although the controls tended to remain the same, they showed relatively more movement in the negative direction than any of the experimental groups.

TABLE 1

MEAN DIFFERENCES FOR TREATMENTS FROM PRE TO POST TESTING ON PERSONALITY VARIABLES

MINNESOTA COUNSELING INVENTORY

Variable[1]	Ind.	Grp.	Comb.	S.S.	Control
FR	19.70	20.65	19.31	20.73	20.71
SR	17.11	16.85	18.40	19.85	18.79
ES	20.43	20.12	18.29	18.58	20.29
C	19.97	20.47	19.60	20.18	20.61
R	17.78	20.28	19.03	20.94	19.05
M	19.62	18.86	19.91	19.73	20.21
L	19.81	18.68	19.00	19.45	19.92

[1] FR Family Relationships   C Conformity   L Leadership
SR Social Relationships   R Adjustment to Reality
ES Emotional Stability   M Mood

HESTON PERSONAL ADJUSTMENT INVENTORY

Variable[2]	Ind.	Grp.	Comb.	S.S.	Control
A	21.42	21.00	21.33	21.33	19.29
S	20.94	21.00	21.22	22.21	20.95
E	21.82	22.59	24.78	20.91	20.44
C	23.21	23.17	22.67	21.36	20.63
P	23.13	22.66	23.44	23.67	21.61
H	21.16	21.57	24.39	22.61	19.71

[2] A Analytical Thinking   C Confidence
S Sociability   P Personal Relations
E Emotional Stability   H Home Satisfaction

The results would indicate that there were no significant differences between means in the amount of change from pre to post testing periods. The data did indicate the presence of some consistent trends for different treatment conditions.

On the variable study habits and attitudes as measured by the BH a significant F was obtained between treatments for each semester. On the total analysis, when the means of the six intact groups within each treatment were combined across semesters, a significant F was obtained.

TABLE 2

SIGNIFICANT F RATIOS FOR STUDY HABITS AND ATTITUDES

Semester	F ratio	P level
First	6.83	.01
Second	3.61	.05
Total	6.13	.01

The significant F's indicate that on the variable study habits there was a significant difference between the treatment groups. To test the significance of pairs of means the critical difference was computed using the obtained level of significance for each semester. (Appendix A.)

TABLE 3

TREATMENT MEANS FOR SURVEY OF STUDY HABITS AND ATTITUDES

Semester	Treatment Conditions				
	Ind.	Group	Comb.	S.S.	Control
First	25.85	18.64	22.07	23.21	20.07
Second	23.37	18.46	18.49	18.79	20.87
Total	24.61	18.56	20.28	21.01	20.47

For the first semester individual counseling was the most potent treatment. It was significantly different (<.01) from group counseling and controls. Study skills was the second most potent treatment, being significantly different (<.01) from group counseling. For the second semester individual counseling differed significantly (<.05 level) from the other treatment conditions. For the combined semesters individual counseling was the most potent treatment differing significantly from all treatment means. In ranking the means study skills is the second most potent treatment. Group counseling was the least effective treatment for all analyses.

The results of the statistical evaluation indicated that the type of treatment is significantly related to improvement in study habits and attitudes.

The underachievers had originally been identified on the basis of the discripancy between their ability and achievement as measured by grade point average. In comparing the mean differences between treatments the following F ratios were obtained.

TABLE 4

F RATIOS FOR GRADE POINT AVERAGE

Semester	F ratio	P level
First	2.30	N.S.
Second	6.41	.01
Total	3.87	.025

Since the means of the groups in group counseling for the first semester ranged from 186 to 248 the variance within this treatment was heterogeneous as compared with the variance of the other treatment conditions.

A constant of 200 was added to discrepancy scores, with positive change being over 200 and negative change below 200.

Using the obtained level of significance for the F ratios, the critical difference was computed to test the significance of individual pairs of means. (Appendix A)

TABLE 5

TREATMENT MEANS FOR GRADE POINT AVERAGE

Semester	Treatment Condition				
	Ind.	Group	Comb.	S. S.	Control
First	235.95	207.13	221.13	215.30	187.15
Second	215.89	184.55	208.93	241.01	211.00
Total	225.92	195.84	215.01	228.16	199.59

For the combined semesters individual counseling and study skills clients showed significantly more improvement than did group counseling and the control group subjects. For the second semester sample individual counseling and study skills were significantly better than group counseling. Study skills was also significantly different from combination and control.

The most potent treatments in improvement , as measured by the grade point average, were study skills and individual counseling. Clients in these treatments showed significantly more improvement than those in group counseling and those receiving no treatment.

The results indicate that for the variables of academic achievement as measured by grade point average and study skills as measured by the BH there were significant differences between treatments in the degree of change from pre to post testing periods.

Discussion

The non-significant findings for the comparative effectiveness of treatments on improvement of personality variables substantiates previously reported research.

In examining change for individual clients within each experimental treatment the wide variance of change would tend to indicate that for some students the particular treatment was helpful toward improved adjustment. Those students who were controls tended to vary much less and generally showed movement in the negative direction rather than in the positive direction. The reverse was true for the experimental counseling subjects.

Berdie (1958) concluded from a series of investigations into the effectiveness of counseling with undergraduate college students, that short term counseling generally does not produce measurably significant changes with essentially normal clients.

He also recommended that change on specific behaviors should be used as criteria rather than change on personality characteristics. The results of this study indicated this would be a valid conclusion for underachieving high school students.

The trend in the data was for those students who were in the experimental counseling treatments to show more improvement than the controls. This supports the general conclusion drawn by researchers working with individual counseling and group counseling, than counseling does contribute to better adjustment. However, client variability within each treatment precludes prediction to individuals.

Results from the findings related to study skills and academic achievement indicate that the type of treatment is related to the degree of improvement. Study skills groups and individual clients showed significantly more improvement in these two areas. Since the study skills groups were the only treatment whose primary goal was directly related to school improvement, these results tend to indicate that perhaps a direct approach in working with underachievers might be successful. Some of the later sections of the report will deal with the type of student who profited most from the study skills groups.

The results indicated that individual counseling clients showed significantly more improvement than group and controls. Indeed, individual counseling was the most potent treatment for improvement in academic achievement. A possible explanation for the results on the BH would be that improvement on study habits and academic achievement were related to the overall improved adjustment of those students who had received individual counseling. Thus, the improvement indicated by the study skills inventory reflected better adjustment to the environment.

The negative movement on the BH and GPA for those students who had received group counseling reflects a trend noted in other group counseling research. That is, group counseling clients usually tend to perform poorer on the post measures of academic achievement than they did on pre measures. In examining the means of the six groups receiving group counseling only two of the six changed in the positive direction. Thus, it may be that group counseling as a technique for helping underachievers to improve their academic performance may be of some value to some students. Which students would profit most from this type of treatment needs to be ascertained. The results of this study would indicate that where improvement in academic achievement is the goal, group counseling is generally the least effective treatment.

The similarity in improvement of individual counseling clients and study skills clients would indicate that perhaps counselors should investigate the usefulness of study skills instruction with their underachieving students. The study skills groups in this study were effective in producing change toward better academic adjustment. The results indicate that, in general, individual counseling is probably the single most effective treatment when a constellation of therapeutic goals are present.

A different type of treatment might be more appropriate for specific goals. Combination seems to be the most effective in improving adjustment in the area of family relationships and intrapersonal adjustment; whereas group counseling seems to be slightly more effective with interpersonal social relationships.

There is a need for additional research to isolate whether specific types of experimental treatments might be more powerful with particular constellations of problems.

Summary

A population of underachievers was randomly assigned to five treatment conditions to compare the relative effectiveness of differential treatment on personality adjustment, study habits, and academic achievement.

On the criterion of personality change there were no significant differences between the treatment groups. Inspection of means indicated that there were consistent trends for combination, group, and individual counseled students to improve. Students in study skills groups remained approximately the same. Students in the control group showed the only trend toward negative movement.

On the criterion of improvement in study habits and attitudes, individual counseling clients showed significantly more change than did students in group counseling and the control groups. Students in study skills groups improved significantly more than group counseling clients. The only negative change was by the group counseling clients.

On the criterion of improvement in grade point average, the results indicated that individual counseling clients and study skills clients improved significantly more than did the group clients or the controls. Group counseling clients and the students in the control group changed in the negative direction.

It was concluded that differential treatments might be more effective when the counselor has different therapeutic goals. In particular, the findings of the study skills group would indicate that this might be a valuable procedure for use with underachieving students.

It is recommended that the combination of study skills instruction in combination with individual counseling should be investigated for effectiveness in working with high school students.

Limitations

Whether the training level of the counselors was a limitation or an asset depends upon the point of view of the reader. It could be hypothesized that counselors who had had more experience and who were trained at the doctoral level would have gotten more positive results. This is, of course, a definite possibility. However, since the study concerned high school counselors it was felt that these results were more typical of those found in the high school setting.

Another, more serious, limitation deals with the motivation of the clients. The clients in this study were not volunteers. They were identified as underachievers, were told that the school wanted to try several ways of helping them, and were requested to attend the first two meetings with their counselor. They were also told that after the first two meetings they could quit or continue, the decision would be theirs. It was felt that since counseling for many of these students might be a new experience it was necessary to give the counseling experience a chance. Without a doubt the motivation of these clients for change could be questioned. The fact that the great majority of the clients remained for more than six sessions indicated that they felt they were receiving some type of help, or at worst, that the meeting with the counselor was a lesser evil than remaining in study hall for that period. When students missed sessions it was up to them to make the next contact. In all respects the usual school situation prevailed following the initial two sessions. Since these students tended to deviate significantly from a norm group toward non-conformity, the fact that they remained in the experimental treatment substantiated the hypothesis that they felt they were receiving help.

When the decision was made to include all underachievers, there was some speculation on how the parents would react. It was significant to note that only one parent requested that their child be withdrawn from the project. This student was in individual counseling and had already completed seven sessions, when she mentioned that she felt the counseling was upsetting, which prompted the mother's request. Since the program was a part of the total school program, it was felt by the administrators and the school counselors that to ask parents for permission for their children to participate would immediately set the program off as being special rather than just another part of the school's program for helping students.

Two students were misidentified as underachievers who were in actuality achievers. One of these requested to be dropped since he didn't belong, and the other requested that she be allowed to continue. These requests were followed. School personnel felt that the program had not reflected negatively upon the underachievers. The use of a total population undoubtedly helped in the assimilation of the experiment in the school's program.

A more serious limitation was also felt to be the relative different experience levels of the counselors with the different types of treatments. Since the counselors were even less familiar with study skills procedures than they were with group counseling, the over-all greater effectiveness of the study skills groups assumes even more importance as a method for use by high school counselors.

Another limitation which might not be realized was that in working with a total population of underachievers the attempt to obtain improvement was working against odds. Teachers usually tend to distribute grades on a curve or by comparing the performance of the different sutdents in the class. Thus, if the underachievers did indeed improve, this would mean that other students were probably doing poorer than they had before. For the post grade period the teachers' distributions of grades for their classes did not change from what they were at the beginning of the study. It might be well to consider that underachievement in school might be a result of teacher variables as much as student variables.

ANALYSIS OF FOLLOW-UP DATA ON THE UNDERACHIEVING SOPHOMORES AND JUNIORS

When the follow-up was made of the students who were still in the high school, several problems occurred causing the follow-up situation to be different from the other testing periods. The pre and post testing had been completed under the direction of the school counselors in several small groups over a period of a week. The follow-up testing, at the request of the new guidance director, was completed in a one afternoon session in the school cafeteria with all students who had been identified as underachievers and who were present taking the tests at the same time. Research assistants and the major investigator, who were unknown by the students, were requested to direct the testing. For the major part of the testing period there were no school personnel present. To further complicate the follow-up testing period, the fire marshall for the city called for an unscheduled fire drill in the middle of the testing period. These conditions were not typical for the school, nor indeed for any of the data collecting in the project. Initially the investigator felt that this follow-up data should not even be scored since the testing conditions were so undesirable; however, the results are reported with the before mentioned conditions in mind.

The criteria of academic achievement and grade point average for the year following the experimental year was, of course, not affected by the above conditions.

The data for all underachievers within a given treatment were combined. The follow-up data were analyzed using an analysis of variance design for each of the criterion variables. Where significant F's were obtained, the t test was used to test the significance of pairs of means. The summary tables for all analyses may be found in Appendix B.

TABLE 4

SIGNIFICANT F RATIOS FOR PRE TO FOLLOW-UP TESTING

Variable	F	P level
Analytical Thinking	2.85	.05
Sociability	3.59	.025
Home Satisfaction	2.58	.05
Grade Point Average	3.21	.025

The analysis of variance for each variable on the Minnesota Counseling Inventory indicated there were no significant differences between the mean improvement of the treatment groups. Significant F ratios were obtained for three of the six Heston Personal Adjustment Inventory variables, A, S, and H.

The means of all treatments on all variables were also examined to ascertain whether any consistent trends existed in the data.

In Table 5 on the variable S, the control group was significantly different from the experimental treatment groups. The means for the MCI scales of social relationships and leadership indicated the same trend.

Although a significant F (.05) was obtained for the variable A, there were no significant differences between individual means. The means for individual counseling and study skills were similar and approached significance ($P < .10$) when compared to group counseling and control means.

For the variable H the means of the individual clients and the study skills clients were significantly higher (P .05) than the mean for the group counseling clients. This difference was substantiated by the

MCI variable family relationships where the means of the study skills and individual clients indicated more improvement than group counseling clients.

TABLE 5

MEAN CHANGE ON CRITERION VARIABLES FROM PRE TO FOLLOW-UP TESTING

MINNESOTA COUNSELING INVENTORY

Variable	Ind.	Grp.	Comb.	S.S.	Control
FR	51.00	56.80	52.25	49.30	52.36
SR	47.39	49.40	51.92	52.30	44.54
ES	50.61	50.53	49.58	51.70	52.63
C	50.00	53.13	52.22	49.30	51.63
R	51.39	55.67	52.33	53.10	53.00
M	49.61	51.80	52.58	53.20	50.54
L	44.94	50.80	50.16	50.40	46.18

HESTON PERSONAL ADJUSTMENT INVENTORY

Variable	Ind.	Grp.	Comb.	S.S.	Control
A	54.27	51.93	53.50	54.80	51.54
S	45.67	47.40	43.83	44.20	54.45
E	47.89	47.73	48.08	47.70	45.27
C	49.50	47.60	49.26	48.80	49.40
P	52.00	50.20	49.92	52.30	51.54
H	48.89	39.07	46.58	49.40	45.36

BROWN-HOLTZMAN SURVEY OF STUDY HABITS AND ATTITUDES

Variable	Ind.	Grp.	Comb.	S.S.	Control
	49.17	44.93	47.17	48.40	47.00

GRADE POINT AVERAGE

218.94	184.33	173.00	227.90	172.36

These differences would indicate that study skills instruction and individual counseling were more effective with clients than were group counseling or no treatment.

On study habits and attitudes there were no significant differences. However, the trend for individual counseling and study skills to be more effective than group counseling or no treatment was evident from the means of the groups.

On the criterion of improved academic achievement as measured by grade point average there was a significant difference (P . .025) between means. The t test was used to test for significant differences between means at the .05 level. Clients in study skills and individual counseling showed significantly more improvement than did the control, combination and group subjects.

Discussion

The pre-follow-up data on the sophomores and juniors who were still in the high school and available for the follow-up testing period showed several significant differences between means. This was the only portion of the study which indicated significant differences between means on personality variables. It is possible that changes on personality adjustment variables might be more evident in a follow-up period than in a post-testing period, since personality change is usually a slower process than is change on such things as study habits. Whether this is what happened with the study population is only speculative. The fact that the significant differences obtained on the HPAI scales for home satisfaction were supported by the comparable MCI scale indicated that this may represent a true difference, between treatment groups. On pre testing the underachievers were significantly different from the norm population on the variable of family relationships on the MCI and had a mean percentile of 33 on the home satisfaction scale of the Heston.

On the sociability scale of the MPAI taken in the pre-testing period, the girls were at the 49 percentile and the boys were at the 42 percentile indicating that they were not significantly different from the norm group. When this is taken into consideration, the significant differences between the control group as compared with the experimental groups tends to be less surprising. However, why this trend existed is not known.

The only variable that would not have been effected by the testing conditions at the follow-up period was academic achievement as measured by grade point average. The significant differences between means for grade point average and for the greater effectiveness of individual counseling and study skills instruction continue the trend which was established during the pre to post testing period.

The effectiveness of these two treatments when compared with the other trends in the follow-up period as well for the post testing period indicate that there is indeed a difference between the effectiveness of the various treatments. The trend for the group counseling clients and for the controls to receive poorer grades during the post period persisted during the follow-up period. Those students who had not received any treatment---the controls---were lower than those who had received group counseling. It could be hypothesized that group counseling helped to slow the trend for poorer grades. The higher means in analytical thinking for individual and study skills clients also reinforces the data on G.P.A. This variable has been shown to be most closely related to achievement than any of the other scales.

The results of the follow-up data suggest several hypotheses that should be subjected to experimental evaluation in the future. Does counseling in a school setting tend to effect personality characteristics over a period of time, or does such counseling tend to set in motion within the individual certain trends that result in more positive movement at the follow-up testing period than is evident at the end of the counseling period itself. In particular, is this true of group experiences, either group counseling or study skills instruction? With the positive results obtained by both study skills instruction and individual counseling it could be hypothesized that a combination of these two treatment conditions would be especially effective with an underachieving high school population. The heterogeneous variance that existed between the intact groups in both combination and group counseling indicate a need for more research to determine what are the characteristics of successful groups as compared to unsuccessful groups. Not only should characteristics of the groups be determined, but also characteristics of the clients and counselors for the successful groups.

Summary

Follow-up data were obtained for those students who had been sophomores and juniors during the study and were still in the high school setting. The conditions under which the follow-up data were obtained were described with the caution regarding the interpretation of the personality and study habits data obtained through the paper-pencil instruments.

The only significant differences between treatment means for personality variables were found on the pre to follow-up period. These differences were on the HPAI variables of analytical thinking, sociability and home satisfaction.

There were no significant differences between treatment means on study habits and attitudes, although the same trends persisted that were significant in the pre to post testing period.

The means for grade point average were significantly different, with study skills and individual counseling being more effective than group, combination, or no treatment. This concurred, in part, with the pre to post data which indicated that individual counseling and study skills were significantly more effective than group or no treatment.

Recommendations for needed research were made.

EFFECTIVENESS OF TREATMENT CONDITIONS WHEN ANALYZED BY GRADE LEVELS AND SEX DIFFERENCES

A review of the literature revealed a lack of research concerned with comparing the relative effectiveness of treatments with the different sexes. Much of the research has concentrated on one sex (Marks, 1958; McCarthy, 1959; Shulman, 1951; Stockey, 1961, Teuber and Powers, 1953). The remainder of the research used groups made up of both boys and girls, but did not report separate analyses for the two sexes. Some investigation has been made regarding the influence of the sex of the therapist on adolescents. Daniels (1958) and Staples (1959) found that the sex of the counselor was not related to improvement for their clients. Groups with two therapists (man and woman) seemed to change in the negative direction while those with only one therapist changed in the positive direction. Whether a particular type of treatment would be more effective with boys or with girls does not seem to have been subjected to experimental evaluation.

Many studies have been completed which were devoted to a single grade level (Baymur and Patterson, 1960; Bilovsky, 1953; Davis, 1959; Froelich, 1958; Ohlsen and Proff, 1960; etc.). Whether or not a specific type of treatment would be more effective with a particular age-grade level does not seem to have been subjected to experimental evaluation.

It was felt that the present research could be extended by analyzing the data for both sex and grade relationships to improvement and to treatment conditions.

Objectives

There were two major questions considered in this unit of the study.

1. Are there any differences in the effectiveness of the various treatments with boys and girls? Does either sex tend to show more improvement on the criterion variables?
2. Are there any differences in the effectiveness of the various treatments with boys and girls? Does any grade level tend to show more improvement than the others on the criterion variables?

Procedures

The difference scores from pre to post-measures were computed for subjects for each variable. Only those students for whom pre and post data were available on all variables were utilized. The data were grouped on the basis of the control classifications of boy-girl for the analysis of sex differences and tenth, eleventh, twelfth grades for the analysis of grade level differences. To test the hypotheses of no differences a treatment X levels design was utilized. Chi square and binomial tests were used to determine if either sex profited more from treatment conditions. Chi square analyses were used to compare the direction and relative amount of change for all grade levels. Where significant F's were obtained for differences between treatments the t test for differences between means was used to test for significance.

Results

Differences Between Sexes

Appendix C contains summary tables for all of the analyses of variance on all the criterion measures when analyzed for differences between sexes.

TABLE 8

SIGNIFICANT F RATIOS FOR SEX DIFFERENCES AND INTERACTION

Variable	F ratio sex differences	F ratio interaction
Reality (MCI)	5.54*	
Home Satisfaction (HPAI)		2.54*
Grade Point Average		4.41**

*P <.05 level
**P <.01 level

There was a significant difference between boys and girls on only one of the criterion variables. The adjustment to reality mean for boys was 47.93 while the mean for girls was 50.64. Since the girls remained relatively constant (.64 in the negative direction) the results indicate the boys improved significantly in this respect.

The significant F's for interaction indicate that differences from level to level between corresponding treatment means cannot be attributed solely to chance. The analysis of the means for the variable Grade Point Average across treatments is discussed later.

Utilizing means of boys and girls (Appendix E) for all variables, analyses were made to determine if any trends existed relative to the direction of change.

In each of the five treatment groups boy-girl means were ranked one or two with a rank of one being assigned to the mean which showed the most positive trend. This was done for all of the criterion variables. The following table gives the total numbers of "one" rankings for each sex on all criterion variables within each treatment group.

TABLE 9

MEANS RANKED "ONE" FOR ALL VARIABLES WITHIN EACH TREATMENT GROUP

Sex Group	Treatment					
	Individual	Group	Combination	Study Skill	Control	Total
Boy	8	6	2	5	10	31
Girl	7	9	13	10	5	44

The binomial test was used to determine if any of the above propositions were significant beyond chance. The combination treatment proportion was significant at the .01 level. It was also noted that in experimental treatments utilizing groups the frequency of girls' means ranked "one" was greater than the frequency of the boys' means ranked "one".

The binomial test was used to determine the means of boys or girls ranked higher more often than chance. This comparison was made only in terms of those who had participated in experimental treatment. Girls ranked highest thirty-nine times as compared to twenty-one for the boys. This difference was significant at the .01 level.

A few of the means for boys and/or girls changed slightly in the negative direction or were the same as at the pre-testing period. Those variables remaining the same or changing in the negative direction were totaled as were those changing in the positive direction for both boys and girls.

A chi square was used to determine if the directions of change could be accounted for by chance. The control group was omitted so as to make the comparison in terms of experimental treatment conditions omitting controls. The table shows that girls changed in the positive direction more often than did boys.

TABLE 10

DIRECTION OF CHANGE FOR ALL VARIABLES FOR BOYS AND GIRLS

Direction	Boys	Girls	Total
Positive Change	40	54	94
Negative or No Change	20	6	26
Total	60	60	120

Chi Square 9.60, df 1, P<.01

Differences between grade levels

The second position of this unit attempted to determine whether significant differences would exist among grades ten, eleven, and twelve. To determine this fifteen analyses of variance were computed, one for each of the criterion variables. Summary tables for all of the Analyses of Variance are in Appendix D. There were no significant differences based on grade level, while there were three significant interaction effects.

TABLE 11

GRADE LEVELS: SIGNIFICANT F'S ON ANALYSIS OF VARIANCE

Variable	F ratio Interaction
Family Relations (MCI)	1.94*
Brown Holtzman	2.82**
Grade Point Average	3.49***

* significant at .05 level
** significant at .01 level
*** significant at .001 level

This would indicate that chance alone does not account for the differences between corresponding means from level to level. Inspection of the means (Appendix F) for the variables B.H. and F.R. reveal an inconsistent pattern of most improvement when viewed either from levels or treatments alone. The lowest mean for both variables was in the study skills treatment and one of the two lowest was at the tenth grade level. One of the three most improved means for both variables was at the twelfth grade level and one at the eleventh grade level and two of the top three were in individual treatment.

In order to obtain information relative to possible trends means were ranked for the variable in each treatment group for the three grade levels. A ranking of one represented the mean which changed most in the positive direction.

A chi square analysis was used to determine if any grade level ranked first significantly more often than chance. The following table shows that seniors ranked first significantly more often than did juniors or sophomores.

TABLE 12

FREQUENCY OF "ONE" RANKINGS FOR GRADE LEVELS

	Sophomore	Junior	Senior	Total
Frequency "One" Rankings	14	17	29	60

Chi Square 6.48, df 2, $P < .05$

A chi square was computed to see if directions of change for any grade level was significant beyond chance. The following table shows that seniors changed in the positive direction more frequently than either of the other two grades while juniors changed positively the least number of times. The results suggest that seniors profited most from treatment conditions while juniors tended to profit least.

TABLE. 13

CHI SQUARE TABLE OF MEAN DIRECTION OF CHANGE ACROSS GRADE LEVELS

Director	Sophomore	Junior	Senior	Total
Positive Change	42	38	53	133
Negative or No Change	18	22	7	47
Totals	60	60	60	180

Chi Square 10.86, df 2, $P < .01$

Differences Between Treatments

In the analysis of the data for differences between sexes and differences between grade levels two significant F's ($P < .05$) were obtained on the variables of emotional stability (H.P.A.) and grade point average. For the purpose of comparing the means between treatments the main effects for grade levels was used. For emotional stability an F of 2.60, significant at the .05 level, and for grade point average an F of 2.87, significant at the .05 level were obtained (Appendix D). The t test was used to test significant differences between the treatment means for the two significant variables.

TABLE 14

COMPARISON OF TREATMENT MEANS[1] FOR EMOTIONAL STABILITY

TREATMENT	M	TREATMENT	M	t
Individual	51.36	Group	52.50	.88
Individual	51.36	Combination	54.37	2.30*
Individual	51.36	Study Skills	50.56	.67
Individual	51.36	Control	50.23	.82
Group	52.50	Combination	54.37	1.19
Group	52.50	Study Skills	50.56	1.29
Group	52.50	Control	50.23	1.41
Combination	54.37	Study Skills	50.56	2.52*
Combination	54.37	Control	50.23	2.57*
Study Skills	50.56	Control	50.23	.28

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[1] Constant of 50 added to difference scores with improvement rated by change in plus direction

*$P < .05$ level

TABLE 15

COMPARISON OF TREATMENT MEANS[1] FOR GRADE POINT AVERAGE

TREATMENT	M	TREATMENT	M	t
Individual	226.20	Group	198.88	2.22*
Individual	226.20	Combination	213.24	.99
Individual	226.20	Study Skills	227.00	.06
Individual	226.20	Control	196.59	2.50*
Group	198.88	Combination	213.24	1.13
Group	198.88	Study Skills	227.00	2.05*
Group	198.88	Control	196.59	.20
Combination	213.24	Study Skills	227.00	.96
Combination	213.24	Control	196.59	1.36
Study Skills	227.00	Control	196.59	2.30*

[1] A constant of 200 was added to each subject's difference score with 200 representing no change.

*$P < .05$ level

For the variable emotional stability the higher treatment mean for combination (more improvement) accounted for the three significant t's.

For the variable grade point average the higher treatment means of individual counseling and study skills as compared to the group and control means account for the four significant t's. Thus, individual counseling and study skills clients improved significantly more than those in group counseling or the controls. The latter two moved in a negative direction.

The control mean was the lowest (negative or no change) for both variables.

Discussion

Although there was only one significant difference for sex differences, trends were noted in the results. The criterion variable of adjustment to reality showed that boys improved significantly more than girls in this area.

The two significant interactions suggest that certain treatment groups at either sex level changed more than would be expected by chance.

In looking at the proportion of rankings of "one" for both sexes and the proportion of positive change as compared to negative change for each sex it would seem that girls profited from the various treatments more than did boys. Three hypotheses might be pertinent to this finding: (1) The cultural role expectations of the boy being dominant and the girl being submissive might influence willingness to accept help, hence effecting counseling outcomes, (2) Since girls mature more rapidly than boys it might be that initial greater maturity is related to degree of changes, (3) Females have generally been found to be more susceptible to influence than males. (Burtt, 1920; Coffin, 1941; Crutchfield, 1953).

The fact that both sexes changed toward better adjustment on a majority of the variables would support the notion that treatment tended to aid the students' academic and personal adjustment. This was substantiated by the fact that the control group changed negatively or became less "well adjusted" on approximately two-thirds of the variables. It is interesting to note that girls responded more favorably to all treatment conditions. The least difference between boys and girls was in individual counseling. The treatment combination resulted in considerably more positive change for girls. These trends would indicate that this might be a fruitful area for further research.

In the data concerning the grade levels one trend seems dominant.

The rankings of means in terms of being closest to good adjustment and in terms of positive change suggested that seniors profited more than the other two grades. The necessity of doing one's best in terms of approaching graduation might have made seniors somewhat more cognizant of the need to do well in school. They possibly viewed the treatments as being an aid in helping them with the immediate goal of graduation from high school and therefore were more ready for individual counseling and study skills experiences. Group counseling was less effective with seniors than with sophomores or juniors. In comparing the effectiveness of treatments for seniors, group counseling was least effective; other treatments produced equally positive results with the seniors.

Only one of the thirteen personality variables showed a significant difference between treatments. Previous researchers have found that counseling in school situations usually does not produce significant personality changes (Berdie, 1958; Broedel, 1958; McCarthy, 1959; Stocky, 1961, et. al.). The present study tends to support these findings. The significant treatment effects on the variable of emotional stability HPAI might be attributed to the effectiveness of this type of treatment. These common problems could be shared with the group and yet there was opportunity to receive individual counseling for those problems too personal to mention in front of the group. The opportunity to find that others shared some of the same concerns plus the opportunity to explore these on an individual basis would seem to be especially effective in working with personality variables. The fact that ten of the thirteen personality variables showed change in the positive direction with three remaining the same and none changed in the negative direction might indicate that a combination of individual and group counseling might be effective when personality change is the goal.

Since the subjects were chosen on the basis of being underachievers the fact that the treatment effects were significant for grade point average was of particular interest. From the table of treatment means it was evident that individual counseling clients and study skills clients improved significantly when compared to students who participated in group counseling and who were in the control groups. Two hypotheses might be offered in this respect. First, those clients who were seen in individual counseling possibly felt more free to bring up any problems which were bothering them, in particular, school and personal problems which may have been in part a cause of their underachievement. Secondly, the study skills instruction group focused their attention on school problems and how to improve one's study habits, hence academic improvement might be more directly seen as the goal of these groups.

The fact that the control group moved in the negative direction rather than remaining constant might be explained in terms of directional movements prior to the onset of the study. However, if underachievement is not an emerging trait but is a more constant trait as has been hypothesized by Shaw and McCuen (1959) and Barrett (1959), the negative movement would be more difficult to explain. However, Ohlsen and Proff (1960) found that gifted underachievers in group counseling tended to move in the negative direction on grade point average from pre to post measurement. It was only in the post to follow-up measurement that there was a significant change. The present study would seem to substantiate these results.

The trend toward greater adjustment for the majority of the variables in the majority of the treatments would seem to substantiate the conclusion that counseling and study skills both tend to help underachievers, both boys and girls, at all grade levels in the senior high school, to improve in academic and social-personal adjustment as measured by the criterion used in the study.

Two trends evident in the data would seem to suggest the need for further research: girls tending to improve more than boys and seniors showing more improvement than other grade levels.

Summary

This unit of the study was concerned with determining whether the variables of sex or grade were significantly related to improvement on any of the criterion measures. A treatment x levels design was used for each variable. Analyses for trends toward improvement were made using chi square and binomial tests.

The only significant control variable was sex on the criterion of adjustment to reality. Trend analysis indicated that treatment resulted in more positive changes and fewer negative-no changes on the criterion than would be expected by chance and that girls tended to change in the positive direction more frequently than boys in all treatment conditions.

There were no significant differences between grade levels on corresponding treatments. However, trend analysis indicated that seniors changed more in terms of positive change than the other two groups.

Significant differences between treatment means were noted for the variables emotional stability (HPAI) and grade point average. The counselees in the treatment condition combination counseling showed significantly more improvement than the other conditions on the variable emotional stability.

Counselees in individual counseling and study skills instruction showed significantly more improvement on the pre-post grade point measure than did the group counseling clients or the control subjects.

It was concluded that the experimental treatments resulted in more change in the positive direction in all instances when compared with the control group.

COMPARISON OF HIGH AND LOW ABILITY GROUPS

The gifted underachiever has received much attention in the literature. Studies on gifted underachievers tend to be found in three areas: descriptions of characteristics of underachievers, causes of underachievement through school and personal history techniques, and ways of helping underachievers.

In this section the major concern was with the last aspect of these investigations. Group counseling with gifted underachievers has been the preferred method of treatment which has been subjected to experimental evaluation. Broedel (1958), Sister McCarthy (1959), Ohlsen and Proff (1960) all worked with gifted underachieving ninth grade students.

Broedel reported significant differences in acceptance of self by the experimental group. No significant results were reported by any of these authors on the criteria of improvement on grade point average and general personality variables from pre to post testing periods. In fact, Broedel, Ohlsen, and Proff reported students showed a slight decrease in grade point average during the period of counseling.

Several investigators have studied the usefulness of individual counseling with low achieving students. Fahey and Waller (1941) and Serene (1953) using individual counseling reported that counseled students compared to the non-counseled students showed significant improvement in decreasing the discrepancy between their ability level and their achievement. Applbaum (1961) concluded that his one interview with gifted tenth grade students made the underachievers aware of their potential, but that additional contacts would be needed to convince them to develop and use this ability.

Studying the appropriateness of study skills courses with underachievers Di Michael (1943) and Tresselt (1951) found improvement in grade point average and study skills. Di Michael concluded low ability students did not profit from study skills instruction and the average group profited more than the high ability group in terms of improved grades. Tresselt reported that poor adjustment was related to less improvement.

In comparative studies Baymur and Patterson (1960) reported that individual counseling resulted in more positive changes in self-concept while group counseling resulted in more improvement in grade point averages. None of the results were statistically significant.

Procedure

To determine if treatments had any differential effect on high and low ability levels the upper and lower quarters of the total population of underachievers were identified. Comparisons were made for the ability groups on pre-post and pre-follow up test data.

There were forty-two students in each group for the pre-post data analysis. The IQ range of the low ability group was 90-104, and for the high ability group 115-135.

The Tukey's test (Edwards, 1954) for comparison of means was used to determine if significant differences existed between the two groups on the personality variables of the MCI and HPAI. To determine if there were significant differences on the BH and GPA the t test was used.

The second stage of the analysis involved the pre-follow-up data. Since there were no follow-up test data on the seniors who had graduated the upper and lower quarters of the remaining population were used for this analysis. Because of the nature of the frequency distribution of ability scores the upper and lower quarters for the pre-post analyses were approximated. This resulted in an N of twenty for the low ability group and twenty-three for the high ability group. The IQ range for the low ability group was 90-104 and for the high ability group 111-124.

Again the Tukey's test for comparison of means and the t tests were used to determine if the groups were significantly different on the criterion variables.

Since GPA had been the most significant variable in the total research problem, a comparison by treatments on the high-low ability dichotomy was made. To accomplish this the subjects of the two groups in the pre-post analysis were catagorized by their appropriate treatment groups. An analysis of variance was then computed. The Duncan's multiple range test (Kramer, 1956) and t tests were used to compare the high-low ability groups across and within treatments.

Results

The Tukey's test for comparison of means on the personality variables and the t test used to compare the means on study habits and grade point average were non-significant for pre-post and pre-follow-up data (Appendix C). The non-significant differences between the means of the low and high ability groups indicate that ability level was not related to the degree of improvement on the criterion variables when all treatments were pooled.

An analysis of variance for the criterion variable grade point average was computed to determine if differences existed in the five treatment conditions between high and low ability groups. The interaction was significant at the .001 level (F=8.88). The Duncan Multiple Range test and t tests were used to determine if significant differences existed between and among treatment means.

TABLE 16

TREATMENT MEANS FOR ABILITY GROUPS ON GPA

	Ind.	Group	Comb.	SS	Control
High Ability	183.50	210.75	214.14	229.42	203.41
Low Ability	236.20	203.12	222.77	206.14	180.00

The Duncan showed that for low ability students individual counseling (M=236.2) was significantly different from the control group (M=180.0) at the .05 level.

Between high and low ability means for different treatments a significant difference was found in the treatment condition of individual counseling (high ability M=183.5, low ability M=236.2, t= 2.31, $P < .05$).

These latter two analyses indicate that individual counseling with low ability students resulted in significant improvement when compared to high ability students who also received individual counseling, and to non-counseled low ability students.

Discussion

When all treatments were pooled there were no significant differences between high (115-140) and low (90-104) ability groups. These results suggest that ability as a variable was not significantly relat4d to the degree of improvement in personality, achievement, or study habits. The means of the high and low ability group were used to identify trends. In comparing the means (Appendix G) on the improvement variables several trends were noted. The low ability students tended to show slightly more improvement on personality variables than high ability students on the pre-post testing. The low ability students also showed slightly more improvement on study habits and grade point average for pre-post and pre-follow-up measures. The trend for the low ability students to profit generally more from treatments than did high ability students might be related to the variable of motivation. Also some researchers have recently inferred that high ability students do not seem to profit as much from counseling in an academic setting as other students. This could be due to a constellation of factors. Since knowledge of ability is usually already present, something else is probably inhibiting the student from achieving. The high ability student may tend to be more defensive in maintaining his present self structure. Whether this is related to the present results can only be speculative.

In considering the effectiveness of different procedures with different ability groups in relationship to grade point average, it was evident that individual counseling was significantly more effective with low ability students than with high ability students. The study skills group was more effective with the high ability students than the low ability students. In fact, on both treatments which were exclusively group in nature --- study skills instructions and group counseling--- the high ability students improved more than the low ability students. These results could be interpreted as supporting the utilization of group procedures with gifted underachievers. It is possible that for the gifted and high ability underachiever, the group experience affords a uniquely needed opportunity that does not exist in the more individualized treatment procedures. Conversely those treatments which included individual counseling---individual counseling and combination---indicated low ability students tended to improve more than high ability students on grade point average. If these trends are shown to be constant across all variables then it would appear that different treatments might be more effective with different levels of ability. If the primary goal of working with underachievers is to improve academic performance then the results of this unit of the study would indicate that consideration of differential treatment for different levels of ability probably relates to effectiveness.

Summary

To compare the high and low ability underachievers the upper and lower quarters of the population of underachievers were identified. The mean improvement of the two groups was compared on all criteria. The Tukey's test for comparison of means and the t test were used to compare the mean change of the two ability groups pooling all treatments. The results of these analyses indicated the ability was not significantly related to a different degree of change.

An analysis of variance was computed to compare the effectiveness of different treatments with high and low ability students on the criterion of grade point average. Interaction was significant at the .001 level. The Duncan multiple range test revealed two means significantly different from each other among low ability students---individual counseling and control groups. There were no significant differences among high ability means. The t test was used to compare means within treatments. Individual counseling was the only treatment in which the high and low ability groups differed significantly. The low ability clients receiving individual counseling improved significantly more than high ability clients.

It was concluded from these results and from the trends noted in the means of the low and high ability groups that the type of treatment used with underachievers of different ability levels might be an important factor in the degree of improvement obtained.

PERSONALITY CHARACTERISTICS OF UNDERACHIEVERS

The majority of the research in this area has been an attempt to describe the personal attributes of gifted underachievers. The intent has been to identify traits that would aid in detecting potential gifted underachierers, as well as aid in understanding underachievers.

Garrison (1952) found with his sample of ninth graders that positive self concepts were correlated with high achievement and negative self-concepts were correlated with low achievement. Shaw and Grubb (1958), Bresee (1957), Gowan (1955), and Kirk (1952) reported that gifted underachievers were hostile. Gowan also found that they were indifferent to responsibilities, unsociable, and self-sufficient.

Merrill (1957) reported non-achievers tended toward conformity, exhibited dependence and immaturity, and had difficulty with parents. Jensen (1957) working with freshman in college found low achieving students of low academic ability generally indicated more adjustment problems than other students. They showed a tendency to score higher on the majority of the MMPI than gifted underachievers and expressed more problems in the area of college adjustment than did gifted underachievers.

McDaniel and Johnson (1962) reported that gifted underachievers as compared to achievers expressed dissatisfaction with the type of discipline used by their parents and tended to blame the teacher or situation for their poor achievement. Applbaum (1961) found that his sample of underachievers, many expressed concern about relationships with their parents and the home situation. From his single interview, he also felt that forty of the group of 277 revealed emotional problems of sufficient strength for them to be viewed as maladjusted.

Objectives

The present study sought to describe the characteristics of a population of underachievers in a senior high school. Three test instruments were used for this purpose: Minnesota Counseling Inventory (MCI), Heston Personal Adjustment Inventory (HPAI), and Brown-Holtzman Survey of Study Habits and Attitudes (B-H). The investigators were interested in determining whether or not the underachievers' scores on the variables measured by these instruments were significantly different from those of the norm group.

Procedure

Means were computed for each variable on the above three instruments. Critical difference ratios were used to determine whether the underachievers were significantly less well adjusted than the norm sample on the MCI and the BH. Because it was predicted that underachievers would be less well adjusted a one tailed test was used. No statistical analysis of the scores on the HPAI were made since neither the publishers nor the manual had the standard deviations and other data necessary for comparing the underachievers with the norm group.

Results

On the MCI the underachievers were significantly different in the direction of poorer adjustment from the norm sample on some of the personality variables, approached significance on some, and were similar to the norm sample on others. The means, standard deviations, and significant variables for each group are given in the following table. High scores are in the direction of poorer adjustment. The norm group used was reported in the Manual (1957) and is identified as the non-Phoenix norm sample.

TABLE 17

COMPARISONS OF RAW SCORES OF UNDERACHIEVERS AND NORM GROUP ON THE MCI

	Grades 9-10			
	Boys		Girls	
	Under-Ach.N=40	Norm N=200	Under-Achievers N=25	Norm N=200
Validity				
Mean	2.6	3.7	2.2	3.6
SD	2.0	2.0	1.5	2.0
Family Relationships				
Mean	12.52**	9.1	12.44**	9.7
SD	7.68	6.4	7.76	7.4
Social Relationships				
Mean	22.25	23.9	27.84**	20.6
SD	13.01	11.9	13.92	11.8
Emotional Stability				
Mean	14.38	14.0	20.80*	16.5
SD	6.03	7.8	8.38	7.4
Conformity				
Mean	14.65**^{1}	13.0	14.28**^{1}	12.6
SD	4.30	3.9	4.13	4.5
Adjustment to Reality				
Mean	13.68	13.7	18.28**^{1}	13.0
SD	7.52	8.4	11.12	8.3
Mood				
Mean	12.40	12.5	15.64**^{1}	13.0
SD	4.36	4.3	6.21	4.6
Leadership				
Mean	11.98	13.4	15.52*	13.3
SD	5.42	4.8	6.16	5.0

** .01   *$_1$ .05
**^{1} .02   *^{1} .06

	Grades 11-12			
	Boys		Girls	
	Under-Ach.N=93	Norm N=200	Under-Ach.N=64	Norm N=200
Validity				
Mean	3.2	3.5	3.4	3.7
SD	2.0	2.3	1.9	2.0
Family Relationships				
Mean	12.19**	9.6	10.46*	8.7
SD	7.35	6.8	7.41	6.1
Social Relationships				
Mean	23.16	20.9	21.69	19.8
SD	11.02	13.2	12.44	11.8
Emotional Stability				
Mean	15.34*	13.7	17.98*	16.1
SD	6.76	7.3	7.38	6.9
Conformity				
Mean	14.47***	12.7	13.52***	11.6
SD	4.22	4.0	4.50	3.7
Adjustment to Reality				
Mean	14.04*	12.3	14.31**[1]	11.7
SD	8.52	7.6	8.40	6.9
Mood				
Mean	13.43**	11.8	14.78***	12.9
SD	4.95	4.5	2.50	4.2
Leadership				
Mean	12.88	12.7	12.76	12.9
SD	4.94	5.2	5.50	4.9

***.001 *.05
**.01 *[1].06
**[1].02

The results of comparing the means of the underachievers with a norm group indicate that on only two variables are the underachievers somewhat similar to the norm group: social relationships and leadership. Except for the 10th grade girls there were no significant differences between the means.

The greatest difference between the underachievers and the norm sample are on the variables conformity and family relationships. The juniors, seniors, and tenth grade girls were also significantly different from the norm sample on the variables emotional stability, adjustment to reality, and mood. However, the tenth grade boys were not significantly different from the norm on these variables.

The results of these comparisons indicated that underachievers were significantly different from other students in the direction of maladjustment.

On the Brown Holtzman Survey of Study Habits and Attitudes (BH) both boys and girls were significantly different from the norm sample. The underachievers' means indicated poorer study habits and attitudes. Table 18 gives the comparative data. The norm sample used was the one reported by the authors in the Manual (1956).

TABLE 18

COMPARISON OF UNDERACHIEVERS AND NORM GROUPS ON THE BH

Group	Boys			Girls		
	N	Mean	S.D.	N	Mean	S.D.
Underachievers	133	25.38	10.58	89	21.86	9.51
Norm Sample	1368	32.60	12.70	1430	32.10	10.40

Boys: CR 7.5 P <.001 Girls: CR 9.85 P <.001

Means were computed for each variable on the HPAI. Table 19 gives the raw score means and the approximate percentile as given in the Manual (1949) for boys and girls on each variable. The high school norm group was used.

The underachievers means on the HPAI indicated that the lowest percentile is on variable A which is most closely related to school achievement. The next two lowest scores were on the variables relating to home adjustment and getting along with others.

TABLE 19

MEANS AND PERCENTILES FOR UNDERACHIEVERS ON THE HPAI

Variable	Boys		Girls	
	Mean	%	Mean	%
Analytical Thinking	18.2	26	17.9	13
Sociability	24.6	52	25.6	44
Emotional Stability	26.3	42	22.2	48
Confidence	23.4	38	19.9	39
Personal Relations	20.5	34	19.5	32
Home Satisfaction	30.9	28	32.7	33

Discussion

The results of comparing the mean scores of the underachievers with the norm samples indicated that underachievers were less well adjusted than the norm sample. The various instruments with comparable scales tended to support each other.

The MCI variables on which there was the greatest significant difference were conformity and family relationships. The HPAI indicated that underachievers were low in home satisfaction. The general picture of home and family difficulties presented by these findings is similar to those reported by other researchers (Merrill, 1957; Applbaum, 1961). The trend toward non-conformity as evidenced by this sample differs with the findings of Merrill (1957) who reported non-achievers tended toward conformity. The similarity of the underachievers to groups reported in the manual who had been nominated as non-conformists by teachers is apparent. However, the underachievers' means on conformity were not as high as the means of those who had been identified as delinquent by the principals. The HPAI variable A and the results of the BH indicated that underachievers differed significantly from other students in their study habits and interest in intellectual activities.

On two variables underachievers tended to be similar to other students in social relationships and leadership, Both variables indicate adequate adjustment in peer relationships.

The significant findings in comparing underachievers with a norm group seem to substantiate the view of underachievement as only one of the areas in which general maladjustment may be reflected. This however, needs further confirmation.

The results obtained in this unit of the study would indicate the need for further study to delineate whether the findings in this study could be used to identify those students who might become underachievers.

It would appear that in particular the MCI and the BH are instruments that might aid in the early detection of underachievement.

Summary

This unit of the study compared the means scores of underachievers with the norm samples. The results indicated that the underachievers differed significantly from other students toward poorer adjustment in family relationships and toward non-conformity. The juniors, seniors, and the sophomore girls also differed significantly from the norm sample on emotional stability, adjustment to reality, and mood.

The underachievers were significantly different from norm samples in their study habits and attitudes.

In general, the composite picture of the underachiever was one who tended toward poor adjustment, except in the area of social relationships.

PROBLEMS OF UNDERACHIEVERS

The period of adolescence is usually described as a period with unique problems resulting from the physical changes of puberty, the increased expectations and different demands placed upon the adolescent and his actions by society, as well as the adolescent's changing expectations of himself.

Problems of adolescence are frequently seen as typical or idiosyncratic. Gardner (1947) suggests that the majority of the problems of adolescents are normal reactions or normal phases without any serious emotional maladjustment arising from the problem situation. These normal problems faced by all adolescents in their striving for adult status provide a basis for observation of the specific adolescent's problems.

This part of the project was specifically concerned with the problems faced by the underachiever. Problems mentioned by the underachievers were ascertained and differences between boys and girls and between the various treatment conditions were examined.

To provide a basis for comparison, studies relating to problems of adolescents were reviewed.

Bell (1938) reported that young people not attending school viewed economic security, educational, vocational, home, personal, and social problems as being important. Symonds (1935) generally concurred with these findings.

Carlson and Sullenger (1958), Garrison and Cunningham (1952), Lewis (1949) and Williams (1949) found that problems concerning school, future plans, home life, social relations, boy-girl relations, health, and religion were of importance to high school students.

Cook (1956) working with dropouts and Chillman (1960) with potential dropouts concluded that poor grades, educational retardation, and poor attendance records were somewhat typical of these students.

A number of studies have utilized a comparison of achievers and underachievers to identify characteristics of underachievers. Frankel (1960), and Phelps (1957) found that underachievers were less interested in school, had fewer problems in the social relations area, and were less active and less interested in future educational plans.

Bressee(1957) found that underachievers manifested greater feelings of insecurity, expressed greater hostility, and were more concerned with physical characteristics. Measured hostility was also found by Shaw and Grubb (1958) to be characteristics of underachievers.

Kimball (1952) and Morrow and Wilson (1961) studied the home atmosphere of underachievers. Kimball found that underachievers often had negative relationships with their father. Morrow and Wilson suggested that the home atmosphere of underachievers did not foster academic achievement.

In terms of self perception, Shaw, Edson, and Bell (1960) found differences in self concept between achievers and underachievers. Male underachievers had more negative feelings about themselves while female underachievers tended to have ambivalent feelings about themselves.

In the studies reviewed, the problems of underachievers has been approached through studying their responses to personality instruments and questionnaires. The primary purposes of the majority of these studies has been to describe the characteristics of underachievers. Summarizing from these studies it would appear that underachievers experience problems in the areas of post high school plans, school adjustment, recreational activities, school attendance, physical characteristics, health, family relationships, and attitudes toward themselves.

Problem

This portion of the study is concerned with ascertaining the types of problems that underachievers discuss in interview situations. Statistical comparisons will be utilized to determine if different types of problems were discussed in different treatments and if the frequency with which problems are discussed differs between treatments.

Procedure

The overall design of the study has been presented earlier. For this facet of the study tapes for five males and five females who had received individual counseling, three counseling groups and three study skills groups were randomly selected from the pool of tapes. Specific sessions analyzed were the total number of sessions available for that individual or group. Individual sessions were twenty-five to thirty minutes long and group sessions were the length of a class period (fifty to fifty-five minutes). For each counseling group and for each study skills group an average of six tapes were analyzed, for individual clients an average of seven tapes were analyzed. Eighteen interview hours were analyzed for each treatment: individual (boys), individual (girls), group counseling, and study skills instruction. Thus the results of this facet of the study are based on seventy-two hours of tape analysis.

Ten different counselors served as the counselors for the individual and group sessions with eight of these counselors having both individual and group sessions.

Judges (project research assistants with counseling experience) listened to the tapes. As a problem was discussed by the student, whether it was introduced by him initially or followed a counselor lead which the student picked up and discussed, this problem was listed by the judge. After all tapes had been analyzed in this fashion the problems were tallied according to their area and specific sub-topic. The frequency of a specific problem was determined by the number of times that problem was brought up in the treatment condition. The categories used for classification were ascertained from the tapes and the related research. The Mooney Problem Checklist (1950) and the S. R. A. Youth Inventory (1953) served as guidelines for the classification of problems. The classification system used for the problems of underachievers is as follows:

I. School Problems
   1. Teachers
   2. Other students
   3. Course work
   4. Tests
   5. Grades
   6. Studying habits
   7. School activities
   8. Problems with memory
   9. Interest and motivation
   10. School regulations

II. Family Relations
   1. Father
   2. Mother
   3. Siblings
   4. Home environment
   5. Parental Control

III. Relationship with Others
   1. Peers
   2. Adults
   3. Popularity
   4. Social impressions
   5. Relatives
   6. Dating and sex problems

IV. Personal Problems
   1. Insecure and nervous
   2. Unhappy
   3. Behavior problems
   4. Self-concept
   5. Lazy
   6. Shyness
   7. Physical appearance

V. Future Problems
   1. College
   2. Vocational choice
   3. Service (Military)
   4. Marriage
   5. General outlook
   6. Uncertainty of future

VI. Activity Problems
   1. Car
   2. Social Activities
   3. Working
   4. Having money

Results of Statistical Analysis

The results of the analysis of tapes for problem areas and frequency with which the problems were discussed was analyzed using chi square. The chi squares for each treatment across all problems are found in Table 20.

TABLE 20

Frequency of Problems Within Treatments

Treatment	SP	FR	RO	PP	FP	AP	TOT.		df	P
	Problem Categories[1]									
Study Skills	49	5	0	0	18	0	72	157.16	5	.001
Group Counseling	63	8	5	2	14	14	106	171.23	5	.001
Individual Girls	33	25	16	17	13	13	117	24.44	5	.001
Individual Boys	52	16	12	20	20	20	140	42.27	5	.001
Total	197	54	33	39	65	47	435			

Total χ^2 = 100.31 with 15 df, P <.001

SP	School Problems	PP	Personal Problems
FR	Family Relations	FP	Future Problems
RO	Relationships with Others	AP	Activity Problems

The significance of the main chi square indicates that the types and numbers of problems brought up is significantly different ($P < .001$) for the various treatment conditions.

Individual chi square analyses for each treatment across all problems were significant beyond the .001 level.

The study skills group concentrated primarily on problems involving school experience with some discussion of problems related to future plans. It was the only experiences treatment condition in which clients did not discuss problems relating to activities.

Similarly, those underachieving adolescents in group counseling spent the majority of their time discussing school problems. Future problems and activity problems were secondary problems, with problems in other areas being discussed infrequently.

The types of problems discussed in individual counseling by the underachieving girls were more evenly distributed, although the results were still significant. School problems arose most frequently, followed by family relationships. Personal problems and relationships with others were discussed slightly more frequently than were future problems and activity problems.

Boys in individual counseling stressed their school problems, discussing with less frequency their problems related to personal matters, the future, and activities. Relationship problems with family or others received less emphasis than other problem categories.

The chi square analyses for each problem area across all treatment groups indicated some significant differences.

TABLE 21

Frequency of Problems Across Treatments

	Treatment Conditions							
Problem Categories	GC	SS	IG	IB	TOT.		df	P
School Problems	49	63	33	52	197	9.36	3	.05
Family Relationships	5	8	25	16	54	17.85	3	.001
Others-Relationships	0	5	16	12	33	18.51	3	.001
Personal Problems	0	2	17	20	39	32.07	3	.001
Future Problems	18	14	13	20	65	2.01	3	.80
Activity Problems	0	14	13	20	47	37.78	3	.001
Total	72	106	117	140	435			

GC Group Counseling IG Individual Counseling (Girls)
SS Study Skills IB Individual Counseling (Boys)

Future problems were considered to the same extent by counselees in all treatment conditions. Although school problems were discussed significantly more than any other category of problems by all counselees, it was considered to a slightly greater extent by those in the group treatments (counseling and study skills) than by those in individual counseling.

Problems in family relationships were considered proportionately more times by the individual counselees---particularly by the girls. The group treatment clients discussed this problem area with less frequency.

In the area of problems with relationships with others girls in individual counseling showed the greatest concern. The study skills group did not discuss problems in this area.

Personal problems were discussed frequently by the individual counselees and rarely by those students in the group treatments.

Problems relating to working, social activities, etc. were discussed more frequently by boys in individual counseling than by clients in the other treatment conditions.

Discussion

It is quite apparent on the basis of the chi square analyses that clients participating in different treatments discuss different kinds of problems. Whether it can be assumed that the treatment condition evoked different responses is not determinable from the data. However, the data does seem to indicate that clients in counseling discussed problems that were of a more personal nature than did clients in study skills instruction. The goals of such instructional groups---either class or small groups---usually tend to be oriented toward educational and vocational goals related to the present and future. This would probably account for the lack of the "personal orientation" in the study skills groups and for the concentration on problems relating to school and future plans. Although there is a personal investment in these topics, the discussion of the problems tends to be more topic oriented.

Group counseling clients in the present study tended to resemble study skills clients more than individual clients in the types of problems discussed. Although problems of the more personal nature were discussed, it was not with the same frequency as in individual counseling. It would appear that the underachievers in group counseling were reticent to discuss personal problems. From the tape analysis it can be postulated that the different levels of readiness on the part of the clients as well as the proficiency of the counselors were partially responsible for the topical emphasis in the counseling groups. Although many references can be found concerning the values of group counseling in helping adolescents to discuss their personal problems, the present study would indicate that this might be from a more topical frame of reference than from an intrapersonal one.

Problems concerning school, teachers, grades, etc. were the most predominate topic of discussion for all the treatments. The emphasis in these discussions usually was more "What's wrong with them" than "How am I responsible for these school difficulties." Since the students all knew initially that the school felt they could be doing better in their school work, this would undoubtedly influence the preponderance with which school problems were discussed. However since other problem topics were discussed in initial interviews and the clients rather than counselors usually initiated the topics relating to school problems the investigators felt the results reflected a real concern on the part of the underachievers. Specific topics such as lazy teachers, teachers' unfairness to individual students, tests do not cover material we had in class, classes are dull, subjects are not related to my plans, etc. were frequently discussed. The manuals and norm tables of the two inventories revealed that the majority of senior high school youth did not consider such things as predominate problems. The underachievers in this study reflected much greater concern with such topics.

Problems relating to future plans, checked frequently by the norm group, were also of concern to the underachievers. The specific emphasis, however, differs somewhat with the underachievers' major concern being his ability to get into college, to find a suitable vocation, etc. and the norm group being more concerned with need for factual information concerning their future plans.

From the review of the literature and the data obtained in the present study it would appear that the problems of underachievers probably differ from other adolescents' in intensity and emphasis with all adolescents having the same general types of problems.

Summary

An analysis was made of a random sampling of tapes representing group counseling, study skills instruction, individual counseling (boys) and individual counseling (girls) to ascertain the type of problems and frequency with which these problems were discussed.

Chi square analyses of the data indicated a significant difference ($P < .001$) in the types of problems and frequency with which they were discussed between the various conditions. Individual chi squares analyses for all treatment groups across all problems were significant beyond the .001 level. Chi square analyses also showed significant differences for the frequency with which problems in the areas of family relationships, relationships with others, personal problems and problems relating to activities were discussed in the different treatments.

Problems of a personal orientation were discussed more frequently by students in the counseling treatments as compared to study skills and more so by those in individual counseling than in group counseling.

The investigators concluded that although types of problems are common for all adolescents the underachievers' differs in the intensity and emphasis with which he views some of these problems.

ANALYSIS OF COUNSELOR STYLE

A great deal of attention has been given to counselor behavior, style, technique, and theoretical position as variables influencing the counseling situation. Research has attempted to identify the type of counselor behavior which will best facilitate the counseling situation. Theoreticians have proposed model counselor behavior which they feel will facilitate the interview.

Thorne (1948) suggests that the counselor or therapist should give major emphasis to those trends in the interview which appear to be etiologically important. He contends that the need for direction is inversely correlated with the clients' potentialities for effective self-regulation.

Rogers (1951) takes the opposite position that such directive counselor behavior indicates lack of confidence toward the client.

Brammer and Shostrom (1960) and Kahn and Cannel (1961) reviewed various techniques and theories suggesting that no one position is absolute. It was found by Fiedler (1950) that expert or better-trained therapists of differing theoretical viewpoints agree more in their descriptions of the ideal therapeutic relationship than do expert or better-trained therapists with therapists trained at a different level within the same school of thought. He suggests that the ability to describe this relationship is probably a function of expertness rather than of a theoretical position.

McGowen (1956) contends that rather than attempting to adapt personalities to a certain theoretical technique (e.g., non-directive, psychoanalytical, or directive), counselors should fit the technique to their own personality. Counselors should develop a "natural" style or technique of counseling.

Counselor personality has been found to be an important variable in the counseling process. Security, sensitivity, and objectivity are seen by Weitz (1957) as those personality traits that make counseling effective. Tuma and Gustad (1957) found that counselors using essentially the same methods with similar clients affected the clients' behavior differently, implying that counselor personality is a variable above and beyond technique influencing the counseling process.

The stability or consistency of counselor behavior is another area of study. Is there a typical pattern of counselor behavior or does a counselor vary in his technique and way of responding? In a study by Hoffman (1959), counselors' behavior varied somewhat with different clients, but generally stayed within the repertoire of counselor roles that were established early in the interview, regardless of changes in client behavior or problems. Somewhat different results were obtained by Grigg and Goodstein (1957), who found that counselors vary not only in kind of technique most often employed, but also in the consistency with which they display their modal technique.

Robinson (1949), in studying response patterns of counselors, found that there was a consistency within a single discussion topic, but that there was variation from one topic to another.

Contrary to this, counselors in a study by Dipboye (1954) varied in terms of response stability within a single discussion topic. He also reported that there was significant commonality in response patterns. Among the counselors he studied (all of whom had been trained in the same program) Aronson (1953) reported that in studying the relationship between counselor behavior and client behavior it was found that counselors differed among themselves but the differences were not significantly related to client behavior.

A study by Snyder (1943) indicated that beginning counselors used more directive techniques, but with experience took a more nondirective approach. Riday (1957) pointed out that training experience is an important variable by rating well-trained and poorly-trained counselors on a counselor criterion. Those counselors from the adequate training program were rated as much more highly effective counselors than were those from the inadequate training program.

Another factor of importance in determining counselor response is the level of affect in groups. Weeks (1957) found that counselors responded differently to high affect-level groups as compared to low or moderate affect-level groups.

With the numerous approaches to the counseling process, a relevant question concerns the effectiveness of these various techniques. Responses such as evaluation, structuring, and reflection resulted in different kinds of client behavior (Bergman, 1951). In this study, reflection of feeling furthered therapy, while evaluation, interpreting, and structuring responses tended to impede therapy. Hildum and Brown (1956), and Saslow, Matarazzo, and Phillips (1957) concur in the finding that different types of counselors' responses elicit different types of client responses. Dittman (1952) found that a high level of counselor participation and responses to feeling were characteristic of successful counseling in the later stages.

Elton (1950) found that the amount of responsibility assumed by a counselee can be affected by the technique the counselor uses. A client can be forced to take responsibility by a technique such as urging. Client expectations or wants seem to be best met by a somewhat directive approach during the counseling process (Sonne and Goldman, 1957, and Grigg and Goodstein, 1957).

Objectives

With the emphasis in the literature on counselor style, the following questions were considered:

1. Do counselors tend to function in the first interview as they do in following interviews, both individual and group (in terms of response pattern)?
2. Do counselors tend to function, in terms of response pattern, similarly in individual counseling as compared to group counseling?

Although the first question has been considered in the literature, the results as shown in the review of research literature have not always been in agreement. Whether a pattern would typify counselors working at the high school level has not been thoroughly explored.

In terms of the second question stated above, no literature was found in which counselor styles were compared on the individual-group counseling dimension. Therefore, it was felt that a contribution could be made which might stimulate further research in this area.

Procedures

Three counselors of the eight who had counseled both individuals and groups were randomly selected for the tape analysis. From the available interviews the first, middle, and last interviews for an individual and a group for each counselor were selected for analysis. The counselor responses were categorized on the basis of a modification of Bales' Interaction Process Analysis categories (Bales 1950, and Munzer and Groenwald 1957).

The modifications of the Bales' categories suggested by Noble, (1958) was utilized in the interaction categories. Two additional categories were added: structuring and small talk. The judges classified each counselor's response by listening to the tapes of the sessions. The categories used for classifying counselor responses were:

1. Structuring---comments that define and describe the counseling relationship for the client
2. Small talk---
3. Simple acceptance---responses indicating the counselor is following and/or understanding, e.g. "Uh huh","Mmm", "I see", etc.
4. Agrees---responses actively concerning with client's verbalizations, e.g. "Yes, that's so", "You're right", etc.
5. Reflects, restates, clarifies---responses that "return" to the client what he

has said neither adding to or interpreting the client's verbalization.

6. Asks for information---comments designed to elicit from the client additional facts or confirmation of previously mentioned facts.
7. Asks for opinion---comments designed to elicit the client's own evaluation, analysis, and expression of feelings.
8. Asks for discussion of plans---comments asking client to discuss possible ways of action, requests for client suggestions, etc. as related to behavior.
9. Gives information---responses that give client factual information, repeating previous statements of facts, confirming information, etc.
10. Gives opinion interpretation---responses that portray the counselor's evaluation of client's responses or gives his feelings and reactions to the client or any facet of the environment.
11. Gives suggestions---comments designed to show the client a course of action or to give the client direction.
12. Takes responsibility---comments where the counselor offers specific assistance to the client, offering to do things for him.
13. Disagrees---responses showing the counselor's non-acceptance of the client's verbalizations, disagreeing with client's information, opinions, suggestions, etc.
14. Rejects, antagonistic---responses showing the counselor's non-acceptance of the client as a person.

Categories 3 and 4 are two of Bales' (1950) categories grouped as "Positive Reactions" in the "social-emotional area." Categories 6,7, and 8 are Bales' categories of "Questions" in the "task area," categories 9, 10, and 11 are Bales' categories of "Attempted Answers" in the "task area"; categories 13 and 14 are two of the Bales' categories labeled "Negative Reactions" in the "social-emotional area." Categories 5 and 12 are from Noble's categories. The brief definitions with examples were used by the judges as the basis for their classification for each response.

For the chi square analysis the following combinations of categories were made: category three was combined with four; six and seven were combined with eight; and nine, ten, and eleven were grouped together. Categories twelve, thirteen, and fourteen were omitted because of absence of responses of these types.

The two judges who rated the counselor responses went through a short training session using two sample tapes to familiarize themselves with the types of responses. The ratings on all experimental tapes were made independently without either judge knowing the other judge's ratings. A high degree of agreement was found between the two judges' ratings. The range of percentage of agreement for all tapes was 84.0% to 100%, with a mean agreement of 91.2%.

The range for individual counseling tapes was 84.4% to 96.7% with a mean of 90.8% while for group counseling tapes the range was 84.0% to 100% with a mean of 91.6%.

A chi square analysis was used to compare each counselor's response pattern in individual counseling with his response pattern in group counseling. Secondly, all first interview individual counseling responses were combined for all three counselors and compared to their middle interview and last interview responses. The same method was used in comparing patterns of responses over the group counseling sessions.

Results

The percentages of each type of counselor's responses in both individual and group counseling were computed. These were used to ascertain whether the counselors had any typical patterns or trends within or between the two types of counseling.

A survey of the percentage tables of counselor responses revealed certain unique trends in the response patterns of the individual counselors.

PERCENTAGES OF TYPES OF COUNSELOR RESPONSES

TABLE 22

Response Categories	Counselor A					
	Ind. Sessions			Grp. Sessions		
	First	Mid.	Last	First	Mid.	Last
1	12.0	11.4	3.7	14.3	4.4	24.2
2	0.0	0.0	3.7	7.1	4.4	6.1
3	32.0	15.9	14.8	14.3	6.7	0.0
4	4.0	11.4	7.4	1.2	2.2	0.0
5	16.0	6.8	3.7	1.2	2.2	0.0
6	16.0	11.4	0.0	33.3	26.7	12.1
7	10.0	6.8	11.1	20.2	40.0	36.4
8	2.0	0.0	0.0	0.0	0.0	0.0
9	8.0	27.3	22.2	4.8	6.7	12.1
10	0.0	9.1	29.6	0.0	2.2	6.1
11	0.0	0.0	3.7	3.6	0.0	0.0
12	0.0	0.0	0.0	0.0	2.2	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	2.2	3.0
Total N of Responses	50	44	27	84	45	33

Counselor A tended to structure more during the first individual counseling interview and then decreased the amount of structuring during the sessions. Simple acceptance and reflection also tended to decrease. This latter behavior together with the increase in giving type responses suggests that the counselor became more directive through his use of task oriented responses in the interview. This latter pattern is representative of the interaction profile of the democratic-directive leader described by Bales (1950).

During the group sessions Counselor A structured the sessions more and engaged in more small talk. Simple acceptance tended to decrease. Asking type responses tended to remain relatively constant and were the most often employed responses. The giving type responses, increase from the first to the last session, however were not frequently used during the interviews.

Counselor A tended to be somewhat more active in the group counseling sessions. However, his evaluative responses increased in both group and individual sessions. The frequency of counselor responses decreased from the first to the final interview, indicating a trend toward fewer responses over the interview series.

PERCENTAGES OF TYPES OF COUNSELOR RESPONSES

TABLE 23

Response Categories	Counselor B					
	Ind. Sessions			Grp. Sessions		
	First	Mid.	Last	First	Mid.	Last
1	5.5	2.2	0.0	9.5	11.1	6.4
2	5.5	8.9	5.2	4.8	6.7	4.8
3	41.7	33.3	68.9	0.0	15.5	22.6
4	8.3	2.2	3.4	4.8	2.2	0.0
5	4.2	6.7	1.7	0.0	2.2	8.1
6	8.3	13.3	8.6	19.0	6.7	6.4
7	11.1	28.9	8.6	47.6	48.9	37.1
8	0.0	0.0	0.0	0.0	0.0	0.0
9	6.9	2.2	1.7	4.8	2.2	8.1
10	8.3	2.2	1.7	4.8	0.0	3.2
11	0.0	0.0	0.0	4.8	2.2	3.2
12	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0
Total N of Responses	50	44	27	84	45	33

In the individual counseling sessions counselor B used simple acceptance more than any other type of response. The evaluative controlling type responses of asking and giving tended to decrease from the first interview to the last. Structuring also decreased from the first to the last interview. His interaction profile closely resembles the non-directive leader (Bales, 1950).

In the group sessions counselor B used more structuring than during individual counseling. Simple acceptance increased from the first to the last interview. The asking-giving type responses remained relatively constant from one session to the next, always being considerably more frequent in group counseling than in individual counseling. The response of giving suggestions tended to be less frequent after the first session, however this type of response was not used during the individual sessions. The number of responses made by counselor B increased consistently from the first session to the last. In terms of total number of responses the counselor appears to have been more active during the individual sessions. However when the simple-acceptance responses of "Uh huh", "I see", etc. are not included it is apparent that counselor B was more verbally active in group counseling.

Counselor C as seen in the following table used structuring during the first individual counseling session and then dropped that technique for the middle and final interviews. Simple acceptance decreased from the first to final interview while the more controlling-directive type response of asking for opinions increased from the first to the last interview. This was also true for giving opinions and interpretations. Although his pattern of being directive was evident in the initial interview, it was much more pronounced by the final interview.

PERCENTAGES OF TYPES OF COUNSELOR RESPONSES

TABLE 24

Response Categories	Counselor C Ind. Sessions First	Mid.	Last	Grp. Sessions First	Mid.	Last
1	16.9	0.0	1.1	3.4	2.3	0.0
2	3.3	4.6	0.0	6.9	0.0	1.9
3	18.6	16.9	10.2	6.9	11.6	25.0
4	1.7	8.5	1.1	6.9	2.3	1.9
5	3.3	1.5	3.4	10.3	9.3	7.7
6	18.6	21.5	4.5	17.2	0.0	1.9
7	28.8	30.8	60.2	27.6	30.2	17.3
8	0.0	0.0	0.0	0.0	0.0	0.0
9	5.1	8.5	2.3	10.3	4.6	1.9
10	1.7	9.2	13.6	10.3	37.2	42.3
11	1.7	0.0	3.4	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0
Total N	59	65	88	29	43	52

During group counseling counselor C employed simple acceptance more as the sessions progressed while agreeing with the client and reflecting decreased slightly from first to last interview. The "asking type" responses tended to decrease the directive approach of the interviews remained constant due to an increase in the giving of opinions and interpretations.

The general democratic-directive approach is evident in both individual and group counseling. The trend of more responses in the evaluative area is apparent. In individual counseling the emphasis is on encouraging the client to evaluate his behavior through asking for opinions, while in group counseling the counselor is evaluative by giving his opinions and reactions to the client.

Counselor C became more verbally active in terms of number of responses from the first to the final interviews for both individual and group counseling sessions.

None of the counselors used the category of disagreeing and only one counselor used the categories of asking for discussion of plans, takes responsibility, and rejects client and he used these very infrequently (not more than three per cent in any interview).

No definite common pattern of responses could be determined for the individual counselors either across their own interviews or across counselors.

These findings concur with the chi square analyses showing that response patterns differed for the counselors.

Statistical Analysis

The chi square analyses for comparing response patterns of first, middle and last interviews for both individual and group counseling resulted in significance levels beyond the .01 and .05 respectively, suggesting that counselors vary in their response patterns from one interview to another.

TABLE 25

COUNSELOR RESPONSES DURING INDIVIDUAL COUNSELING

	Structuring	Small Talk	Accept Agree	Reflect Restate	Ask	Give	Total
First Interview	20	6	66	13	56	20	181
Middle Interview	6	7	54	7	61	29	164
Last Interview	2	4	58	5	70	34	173
Totals	28	17	178	25	187	83	518

Chi Square 29.04, df 10, $P < .01$

A review of the table for individual counseling shows that social emotional responses of agreeing and accepting and task area responses of a giving nature were most often used. Asking type responses were also more frequently employed than were the other categories.

TABLE 26

COUNSELOR RESPONSES DURING GROUP COUNSELING

	Structuring	Small Talk	Accept Agree	Reflect Restate	Ask	Give	Total
First Interview	15	9	18	4	72	16	134
Middle Interview	8	7	18	6	68	25	132
Last Interview	12	6	28	9	53	38	146
Totals	35	22	64	19	193	79	412

Chi Square 19.04, df 10, $P < .05$

In group counseling, counselors tended to use task oriented asking responses most often. The accepting-agreeing and giving type responses also ranked quite high. There was a degree of consistency in the two types of counseling interviews in that the same three categories were most frequently used.

The chi square analyses for comparing the individual counselors' response patterns in individual and group counseling sessions resulted in levels of significance for all three counselors beyond the .001 level.

The results of the table on the next page indicate that all three counselors' response patterns differed from individual to group counseling sessions. The most frequently used categories by all counselors were accept/agree, ask, and give. All three used accept/agree more in individual counseling than in group sessions.

TABLE 27

RESPONSE PATTERNS OF EACH COUNSELOR

Counselor A Response Patterns

	Structuring	Small Talk	Accept Agree	Reflect Restate	Ask	Give	Totals
Individual Counseling	12	1	36	12	25	35	121
Group Counseling	22	10	17	2	91	17	159
Totals	34	11	53	14	116	52	280

Chi Square 64.28, df 5, P <.001

Counselor B Response Patterns

	Structuring	Small Talk	Accept Agree	Reflect Restate	Ask	Give	Totals
Individual Counseling	5	11	94	7	43	15	175
Group Counseling	11	9	23	6	66	15	130
Totals	16	20	117	13	109	30	305

Chi Square 44.74, df 5, P <.001

Counselor C Response Patterns

	Structuring	Small Talk	Accept Agree	Reflect Restate	Ask	Give	Totals
Individual Counseling	11	5	38	6	119	33	212
Group Counseling	2	3	24	11	36	47	123
Totals	13	8	62	17	155	80	335

Chi Square 37.20, df 5, P <.001

The following table gives a rank order for all categories used in the chi square analyses. The symbol X denotes individual counseling and Y denotes group counseling.

TABLE 28

Rankings of Responses for Each Counselor

RESPONSE	COUNSELOR A		COUNSELOR B		COUNSELOR C	
	X	Y	X	Y	X	Y
1. Structuring	4.5	2	6	4	4	6
2. Small talk	6	5	4	5	6	5
3. Acceptance, Agreement	1	3.5	1	2	2	3
4. Reflect, Clarify Restate	4.5	6	3	6	5	4
5. Ask information, opinion, plans	3	1	2	1	1	2
6. Give information interpretation, suggestion	2	3.5	3	3	3	1

The rankings of frequency of types of responses agrees with the chi square analyses. Category five which is somewhat "directive" was ranked first most often. The "directiveness" of this category was offset somewhat by the "non-directive" category of acceptance-agreement. The differences between a particular counselor's mode of responses in individual counseling as compared to group counseling is also apparent.

On the basis of the chi square analyses for combined counselor responses across the three interviews, for both individual and group counseling, and the table percentage of responses, it was evident that this sample of counselors used different response frequencies and different response patterns from one session to another. This concurs with the results obtained by Grigg and Goodstein (1959) who also found that counselors varied in the technique most often used and in the consistency with which they used their modal technique.

The counselors in the sample seldom, if ever, used several of the categories: taking responsibility, asking client to discuss plans, disagreeing and rejecting the client. These results might indicate that this group of counselors saw the counseling experience as a time when the clients should make their own decisions in a non-judgmental atmosphere. The tendency of each counselor to use predominantly a few response categories, varying his responses in these categories concurs with Danskin (1959) who reported that although counselors varied their role during an interview, they employed a limited number of roles.

The preponderance of questioning responses might be viewed with alarm by those who would advocate a strictly non-directive approach with high school students. However, these results were not surprising when viewed from the results obtained by Grigg and Goodstein (1957) whose clients felt that they obtained from counseling what they wanted when the counselor took a more active, somewhat directive role. Somme and Goldman (1957) also reported that high school clients preferred eclectic counseling to that of non-directive counseling. From the results of these two studies it might be hypothesized that this sample of counselors was responding to the needs of the high school clients. This is an area that warrants further study.

The lack of consistency between response patterns in individual and group counseling for the individual counselors would suggest that these counselors saw their roles in individual counseling differing from their roles in group counseling. However, they did tend to use the same repertoire of responses in both types of counseling, differing in the extent to which specific responses were used. They also tended to use the same responses throughout the series of interviews that they used in the first interview concurring with Hoffman's (1959) finding that though counselors' behavior varied with different clients, it generally stayed within the same roles used early in the interview.

When the counselors were considered individually it was apparent that each counselor had a typical pattern of movement which seemed to progress throughout the interviews either toward being more non-directive or more directive. Whether these were a function of the counselors' own mode of operation or were a function of responding to a particular type of client was not ascertainable from the data. Since all the counselors in both individual and group sessions tended to use questioning and agreeing-accepting responses proportionately more than other responses might indicate that these counselors saw their role as being eclectic. This, with the differing frequencies of responses, might also indicate that the counselors were responding more to the needs of the clients than in terms of a single technique or style.

Summary

This unit of the study dealt with counselor style, specifically the consistency with which counselors function over interviews and whether they tend to operate the same in individual counseling and group counseling.

Three counselors were randomly selected for tape analysis. The first, middle, and final interviews for an individual and a group for each counselor were analyzed.

Counselor responses were categorized on the basis of a modification of the Bales' Interaction Process categories. Fourteen categories were used.

Results showed that all counselors varied their style over the series of interviews in terms of frequency of particular responses. However, each counselor tended to have a consistent directional movement in the series of interviews. Agreeing/accepting comments and asking comments were used predominately by all counselors.

Counselors responded differently in individual counseling and group counseling. Counselors tended to use more agreeing responses than expected in individual counseling and fewer in group counseling. Structuring responses tended to be used more frequently in group counseling than in individual counseling.

ANALYSIS OF CLIENT RESPONSES

Two major approaches have been utilized to study client verbalizations: studying the counselor's effect on client responses and studying the client's response as the variable effecting interview progress and interaction. The criterion for a successful interview has often been based on the verbal responses of the client, taking into account such dimensions as level of affect, content, quantity, etc.

The reinforcement of behavior by counselor responses has been an effective determiner of client behavior in the counseling setting. Greenspoon (Dollard and Miller, 1950) found that certain verbal reinforcements tended to elicit more client responses than did other types of verbal reinforcement. The approval or disapproval of client responses was shown by Murray (1956) to have a significant effect on whether these responses would increase or decrease. Positively reinforced responses increased while negatively reinforced responses decreased. Hildum and Brown (1956) found that "mm-humm" had no reinforcement value to the client, but that "good" did reinforce client behavior.

Bergman (1951) reported that often a type of counselor response (i.e. evaluation, structuring, reflection) would be followed by a certain type of client response (i.e. abandonment, self-exploration, insight). He stated that reflection of feeling furthered therapy the most.

The second approach has concentrated on the clients' responses as a variable effecting interview progress. The fact that clients tend to like an eclectic approach (Grigg and Goodstein, 1957. Sonne and Goldman, 1957) affects the client-counselor interaction. Davis (1958) suggests that the type of problem a client has influences his expectation of the counselor's role. Appel (1960) found somewhat different results in that client expectancies could not be used in predicting client behavior during counseling. Weeks (1957) found that level of affect was related to the amount of client talk in relationship to the total talk.

Carnes and Robinson (1948) working with quantity of verbalization found there was no relation between amount of verbalization and insight in study skills groups, but that there seemed to be a relationship between quantity of verbalization and problems. Barry (1950) found a relationship between certain characteristics of client responses and the level of client adjustment.

Cohn, Ohlsen, and Proff (1960) reported that an unproductive counseling group tneded to spend the majority of their time giving opinions and information in response to counselor questions with little affect being expressed and that being of a negative nature.

Zimet (1960) used the Bales' categories in analyzing client verbalization, finding significant relationships between character defenses (measured by psychological tests) and positive and negative verbalizations. Psathas (1960) found therapy groups showed similar patterns of behavior to experimental problem solving groups, but with some differences.

Bales (1950) reported several examples of analyses of members' behavior in groups. Utilizing the modifications suggested by Noble (1958) and further modifying the categories, it was felt that information regarding client response patterns could be obtained from modified Bales' categories.

This unit of the study sought to answer the following questions:

1. Will clients seen individually by a counselor respond differently in terms of types of responses than those meeting in a group counseling situation?
2. Will individually counseled clients change their response pattern from one session to another?
3. Will groups change their response pattern from one session to another?

Procedure

The randomly selected tapes analyzed for counselor response patterns were also used for analyzing individual and group response patterns. The first, middle, and last interviews were used for analysis. For a more detailed description of the procedures used see "Analysis of Counselor Style."

The client responses were categorized on the basis of a client response form which was parallel to the Bales' modification used in the categorization of counselor responses. The definitions of the categories are given in the section on counselor style. The categories used were:

1. Small talk
2. Accepts self
3. Agrees with and accepts others
4. Reports plans
5. Gives opinions
6. Gives information
7. Asks for information
8. Asks for opinion
9. Asks for suggestions
10. Disagrees
11. Rejects others
12. Rejects self.

For the chi square analyses the following combination of categories were made: two with three; four, five, and six; and seven, eight, and nine. This was similar to the combination of categories described in the section on counselor interaction. Those categories omitted because of extreme infrequency of responses (less than two percent of the total) were one, ten, eleven, and twelve.

The two judges who rated the clients' responses participated in a training program using sample tapes to familiarize themselves with the categories of client responses. The ratings were made independently without either judge knowing the other's rating.

The percentage of agreement in categorizing the responses was as follows. For individual counseling sessions, the range was 75% to 91% agreement with a mean agreement of 82.4%. For group counseling the range was from 66.6% to 98.3% agreement with a mean percentage of agreement of 85.1. For individual and group responses combined it was 83.7%.

Results

The responses of all individual clients and all group responses were combined to determine whether differences existed between the type of responses of individual clients and group clients.

The significant chi square in the following table indicates a definite overall difference in patterns of client responses in the individual counseling setting as compared to group counseling response patterns.

Group clients, to a much greater degree (76%) than individual clients (58%), used the categories of giving opinions, information, and plans.

TABLE 29

FREQUENCY OF CLIENT RESPONSES IN GROUP AND INDIVIDUAL COUNSELING

	Individual counseling	Group counseling	Totals
Accepts self, and others, agrees with others	145	69	214
Reports plans, gives opinion and information	239	360	599
Asks for opinion, information and suggestions	24	44	68
Totals	408	473	881

Chi square 52.42, df 2, P< .001

Individual clients made considerably more use (35%) of the categories of accepting self and others and agreeing, than did group clients (15%).

To determine whether there was a changing pattern of client responses as counseling progresses, an analysis was made of client responses across interviews.

TABLE 30

CLIENT RESPONSES IN INDIVIDUAL COUNSELING

	First Interview	Middle Interview	Last Interview	Total
Accepts self and others, agrees with others	37	50	58	145
Reports plans, gives opinion and information	82	77	80	239
Asks for opinion, information and suggestions	14	5	5	24
Totals	133	132	143	408

Chi square 12.85, df 4, P< .05

The results in the above table suggest that frequency of types of responses were not necessarily consistent from interview to interview. In fact, rather than the frequency of types of responses remaining the same, two definite trends were discernible: the accepting and agreeing responses tended to increase and the asking responses tended to decrease over the period of interviews.

A chi square was also computed for clients' responses in group counseling across the first, middle, and last interviews.

TABLE 31

CLIENT RESPONSES IN GROUP COUNSELING

	First Interview	Middle Interview	Last Interview	Totals
Accepts self and others, agrees with others	29	20	20	69
Reports plans, gives opinion and information	175	101	84	360
Asks for opinion, information and suggestions	20	6	18	44
Totals	224	127	122	473

Chi square 8.53, df 4, $P < .10$

The non-significant results for changes in group clients' responses indicated clients in the group counseling sessions responded similarly at all three stages during the period of the interviews. The predominate responses during all interviews were giving information, opinion, and reporting plans.

Discussion

The significant difference between the types of responses made by clients in group counseling and in individual counseling can be interpreted from several viewpoints. Many persons writing in the area of group counseling have emphasized the differences between group and individual counseling for the client. People frequently respond differently in a one-to-one situation than they would in a group situation. These results point up a possible needed area of research in interaction in counseling; that is, the differences in behavior of a client in different helping situations. It was expected that group counseling would tend to produce more agreeing with others and accepting responses than would individual counseling. One of the major values of the group counseling setting for adolescents has been considered its unique opportunity to offer adolescents an opportunity to see that others faced the same problems as they do. Whether or not different results would have been obtained if different counselors had been used is open to speculation. In comparing the clients' responses to the same counselor, the client in individual counseling did not follow the same pattern of responses as did the clients in the group setting. Whether this difference is attributable to a difference in counselor technique was not ascertainable from the data. However, in comparing the results of client responses with the results obtained for counselor styles such a hypothesis is tenable.

The changes noted in the table relating to individual clients' responses would tend to indicate that as counseling progresses the client might "learn" the therapeutic task. The task is generally seen as talking about one's self and moving toward more self and other acceptance.

These trends were evident in the table and were substantiated by a decrease in asking the counselor for his opinions and suggestions. This same pattern was typical for clients of all three counselors, suggesting this interview pattern might not be related to counselor behavior since the counselors did not respond to their individual clients in the same fashion. (See the unit on "Analysis of Counselor Style.")

The opposite pattern existed in group counseling, with fewer responses in the categories of accepting self and others and agreeing with others. For the groups this may illustrate the movement from saying what was socially acceptable and expected to a willingness to be oneself. It may also represent an actual decrease in accepting others.

The patterning of response frequencies fpr the groups was inconsistent and irregular. Only one pattern seemed evident. As group counseling progressed, the clients tended to let each other talk for a longer period of time or else they verbalized less frequently than they did in earlier interviews. The tape analysis indicated that both of these were possibilities.

The inconsistent patterning of frequencies of responses might also be related to the relative inexperience of the counselors in group procedures as compared to individual counseling. Even though all counselors qualified for professional certification, they had not had as much experience with group counseling as with individual counseling. Since this tends to be a rather typical occurrence in high schools at the present time, the results obtained in this portion of the study might indicate a need for more work in group procedures in the training program of high school counselors.

When the three group response patterns were considered by themselves it was apparent that no pattern existed which was typical for all groups and no pattern was typical within the group, other than the emphasis on giving information, opinions, and suggestions. Whether such verbal activity was therapeutic is debatable. If these three groups were typical of all groups in the project it can be hypothesized that such verbal activity was not related to significant improvement in achievement or study skills, since those clients who participated in group counseling tended to change in the negative direction on these variables.

Summary

In this unit of the study client response patterns (interaction) were investigated. It was found that the patterning of responses for clients in individual and group counseling during the period of treatment were significantly different from each other. Group counseling clients tended to make proportionately more use of evaluative types of responses while the individual clients tended to use proportionately more positive social-emotional responses. The individual clients showed two major trends over the period of interviews: an increase in positive emotional responses and a decrease in evaluative type of responses.

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Appendix A

Analysis of Variance for Pre-Post Measures: Intact Groups Within Treatments

MINNESOTA COUNSELING INVENTORY

FAMILY RELATIONSHIPS

Source	SS	df	MS	F
Semester 1				
Treatment	10.58	4	2.64	.78
Within	33.84	10	3.38	
Semester 2				
Treatment	9.00	4	2.25	.36
Within	62.86	10	6.29	

SOCIAL RELATIONSHIPS

Source	SS	df	MS	F
Semester 1				
Treatment	64.35	4	16.09	1.72
Within	93.72	10	9.37	
Semester 2				
Treatment	41.27	4	10.32	.72
Within	142.42	10	14.24	

EMOTIONAL STABILITY

Source	SS	df	MS	F
Semester 1				
Treatment	17.77	4	4.44	1.34
Within	33.19	10	3.32	
Semester 2				
Treatment	7.53	4	1.88	.20
Within	94.82	10	9.48	

CONFORMITY

Source	SS	df	MS	F
Semester 1				
Treatment	4.82	4	1.21	.72
Within	16.91	10	1.69	
Semester 2				
Treatment	13.72	4	3.43	.80
Within	43.09	10	4.30	

ADJUSTMENT TO REALITY

Source	SS	df	MS	F
Semester 1				
Treatment	61.28	4	15.32	2.11
Within	72.63	10	7.26	
Semester 2				
Treatment	20.50	4	5.12	.52
Within	98.93	10	9.89	

MOOD

Source	SS	df	MS	F
Semester 1				
Treatment	3.26	4	.82	.17
Within	48.91	10	4.81	
Semester 2				
Treatment	9.59	4	2.40	.67
Within	36.00	10	3.60	

LEADERSHIP

Source	SS	df	MS	F
Semester 1				
Treatment	1.21	4	.30	.08
Within	38.79	10	3.88	
Semester 2				
Treatment	7.35	4	1.84	.38
Within	47.92	10	4.79	

HESTON PERSONAL ADJUSTMENT INVENTORY

ANALYTICAL THINKING

Source	SS	df	MS	F
Semester 1				
Treatment	7.40	4	1.85	.50
Within	36.98	10	3.70	
Semester 2				
Treatment	21.71	4	5.43	3.05
Within	17.85	10	1.78	

SOCIABILITY

Source	SS	df	MS	F
Semester 1				
Treatment	24.81	4	6.20	1.15
Within	53.91	10	5.39	
Semester 2				
Treatment	29.09	4	7.27	.78
Within	93.24	10	9.32	

EMOTIONAL STABILITY

Source	SS	df	MS	F
Semester 1				
Treatment	24.81	4	6.20	1.15
Within	53.91	10	5.39	
Semester 2				
Treatment	29.09	4	7.27	.78
Within	93.24	10	9.32	

CONFIDENCE

Source	SS	df	MS	F
Semester 1				
Treatment	20.75	4	5.19	1.43
Within	36.17	10	3.62	
Semester 2				
Treatment	36.98	4	9.25	1.74
Within	53.33	10	5.33	

PERSONAL RELATIONS

Source	SS	df	MS	F
Semester 1				
Treatment	8.30	4	2.08	.28
Within	73.49	10	7.35	
Semester 2				
Treatment	11.58	4	2.90	.42
Within	69.78	10	6.98	

HOME SATISFACTION

Source	SS	df	MS	F
Semester 1				
Treatment	39.23	4	9.01	1.21
Within	81.41	10	8.14	
Semester 2				
Treatment	100.65	4	25.16	3.15
Within	79.89	10	7.99	

BROWN HOLTZMAN SURVEY OF STUDY HABITS AND ATTITUDES

Source	SS	df	MS	F
Semester 1				
Treatment	91.22	4	22.81	6.83**
Within	33.45	10	3.34	
Semester 2				
Treatment	52.29	4	13.07	3.61*
Within	36.21	10	3.62	
Total				
Treatment	120.03	4	30.01	6.13**
Within	122.35	25	4.89	

* $P < .05$ ** $P < .01$

GRADE POINT AVERAGE

Source	SS	df	MS	F
Semester 1				
Treatment	4142	4	1035.50	2.30
Within	4499	10	449.90	
Semester 2				
Treatment	4921	4	1230.00	6.41**
Within	1918	10	192.00	
Total				
Treatment	5251	4	1313	3.87*
Within	8483	25	339	

*P .025 **P .01

GRADE POINT AVERAGE

Second Semester M_1= 215.89		A_2	A_3	A_4	A_5
Individual M_2=184.55	A_1	31.34*	6.96	25.12	4.82
Group M_3=208.93	A_2		24.38	56.46*	26.45
Comb. M_4=241.01	A_3			32.08*	2.07
S.S. M_5=211.00	A_4				30.01*
Control	Critical difference 29.05 for *.01 level				

Total		A_2	A_3	A_4	A_5
M_1=225.92	A_1	30.08*	10.91	2.24	26.33
M_2=195.84	A_2		19.17	32.32*	3.75
M_3=215.01	A_3			13.15	15.42
M_4=228.16	A_4				28.57*
M_5=199.59					

Critical difference 26.39 for *.02 level
Critical difference 21.84 for .05 level

COMPARISON OF TREATMENT MEANS ON VARIABLES WITH SIGNIFICANT F RATIOS

Survey of Study Habits and Attitudes

First Semester		A_2	A_3	A_4	A_5
M_1=25.85	A_1	7.21	3.78	2.64	5.78*
Individual	A_2		3.43	4.57*	1.43
M_2=18.64	A_3			1.14	2.00
Group	A_4				3.14
M_3=22.07					
	Critical difference 3.84 for *.01 level				
Second Semester		A_2	A_3	A_4	A_5
M_1=23.37 M_2=18.46	A_1	4.91*	4.88*	4.56*	3.50
M_3=18.49	A_2		.03	.33	2.41
M_4=18.79	A_3			.30	2.38
M_5=20.87	A_4				2.08
	Critical difference 3.57 for *.05 level				
Total		A_2	A_3	A_4	A_5
M_1=24.61	A_1	6.15*	4.33*	3.60*	4.14*
M_2=18.56	A_2		1.72	2.45	1.91
M_3=20.28	A_3			.73	.19
M_4=21.01	A_4				.54
M_5=20.47					
	Critical difference 3.57 for *.01 level				

Appendix B

Analysis of Variance for Pre-Follow-up Data
Across Treatments

MINNESOTA COUNSELING INVENTORY

Variable	Source	SS	df	M	F
FR	Treatment	420	4	105.00	2.53
	Within	2721	61	44.61	
SR	Treatment	477	4	119.25	1.12
	Within	6457	61	105.85	
ES	Treatment	63	4	15.75	.28
	Within	3337	61	54.70	
C	Treatment	131	4	32.75	1.61
	Within	1241	61	20.34	
R	Treatment	159	4	39.75	.51
	Within	4725	61	77.45	
M	Treatment	160	4	40.00	1.65
	Within	1479	61	24.24	
L	Treatment	161	4	40.25	1.60
	Within	1527	61	25.03	

HESTON PERSONAL ADJUSTMENT INVENTORY

Variable	Source	SS	df	M	F
A	Treatment	281	4	70.25	2.85*
	Within	1499	61	24.57	
S	Treatment	843	4	210.17	3.59*
	Within	3565	61	58.44	
E	Treatment	62	4	15.50	.28
	Within	3317	61	54.37	
C	Treatment	26	4	6.50	.10
	Within	3628	61	59.47	
P	Treatment	59	4	14.75	.26
	Within	3241	61	53.13	
H	Treatment	991	4	247.75	2.56*
	Within	5891	61	96.57	

*$P < .05$

BROWN HOLTZMAN SURVEY OF STUDY HABITS AND ATTITUDES

Source	SS	df	MS	F
Treatment	159	4	39.75	.41
Within	5833	61	95.62	

GRADE POINT AVERAGE

Source	SS	df	MS	F
Treatment	34,180	4	8545.00	3.21*
Within	162,215	61	2659.26	

*P < .05

COMPARISON OF TREATMENT MEANS ON VARIABLES WITH SIGNIFICANT F RATIOS: t TEST

		Sociability (HPAI)			
		t ratios			
Individual M_1=46.67	M_1	.64	.64	.48	2.99**
Group M_2=47.40	M_2		1.20	1.02	2.32*
Combination M_3=43.83	M_3			.11	3.32**
St. Skills M_4=44.20	M_4				3.06**
Control M_5=54.45					

Column heads of the t ratios: M_2, M_3, M_4, M_5

*P ≤ .05
**P ≤ .01

		Home Satisfaction (HPAI) t ratios			
Individual		M_2	M_3	M_4	M_5
M_1=48.89	M_1	2.85**	.62	.13	.93
Group M_2=39.07	M_2		1.97	2.57*	1.61
Combination M_3=46.58	M_3			.67	.29
St. Skills M_4=49.40	M_4				.94
Control M_5=45.36					

*$P < .05$
**$P < .01$

		Grade Point Average t ratios			
Individual		M_2	M_3	M_4	M_5
M_1=218.94	M_1	1.91	2.38*	.43	2.35*
Group M_2=184.33	M_2		.56	2.06*	.58
Combination M_3=173.00	M_3			2.48*	.02
St. Skills M_4=227.90	M_4				2.46*
Control M_5=172.36					

*$P < .05$

		Analytical Thinking (HPAI) t ratios[1]			
		M_2	M_3	M_4	M_5
Individual M_1= 54.27	M_1	1.34	.41	.27	1.43
Group M_2=51.93	M_2		.81	1.41	.19
Combination M_3=53.50	M_3			.62	.94
St. Skills M_4=54.80	M_4				1.50
Control M_5=51.54					

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[1] Means were compared using formula (19) Lindquist, 1956, p. 91. There were no significant differences between individual means.

Analyses of Variance for Differences Between Sexes

MINNESOTA COUNSELING INVENTORY

FAMILY RELATIONSHIPS

Source	SS	df	MS	F
Treatments	31	4	7.75	.32
Sex	31	1	31.00	1.29
Treatment x Sex	78	4	19.50	.81
Within	3979	166	23.97	

SOCIAL RELATIONSHIPS

Source	SS	df	MS	F
Treatments	138	4	34.50	.43
Sex	26	1	26.00	.32
Treatment x Sex	343	4	85.75	1.07
Within	13,816	166	80.17	

EMOTIONAL STABILITY

Source	SS	df	MS	F
Treatments	118	4	29.50	.83
Sex	11	1	11.00	.31
Treatment x Sex	260	4	15.00	.43
Within	5835	166	35.15	

CONFORMITY

Source	SS	df	MS	F
Treatments	15	4	3.75	.24
Sex	1	1	1.00	.06
Treatment x Sex	150	4	37.50	2.47*
Within	2524	166	15.20	

*$P < .05$

ADJUSTMENT TO REALITY

Source	SS	df	MS	F
Treatments	278	4	69.50	1.23
Sex	311	1	311.00	5.54*
Treatment x Sex	43	4	10.75	.19
Within	9304	166	56.05	

*$P < .05$

MOOD

Source	SS	df	MS	F
Treatments	14	4	3.20	.16
Sex	60	1	60.00	3.00
Treatment x Sex	36	4	9.00	.45
Within	3318	166	19.99	

LEADERSHIP

Source	SS	df	MS	F
Treatments	11	4	2.75	.14
Sex	18	1	18.00	.96
Treatment x Sex	55	4	13.75	.74
Within	3066	166	18.58	

HESTON PERSONAL ADJUSTMENT INVENTORY

ANALYTICAL THINKING

Source	SS	df	MS	F
Treatments	158	4	39.50	1.38
Sex	0	1	0.00	0.00
Treatment x Sex	52	4	13.00	.46
Within	4690	166	28.25	

SOCIABILITY

Source	SS	df	MS	F
Treatments	46	4	11.50	.31
Sex	2	1	2.00	.05
Treatment x Sex	209	4	52.25	1.45
Within	5989	166	36.00	

EMOTIONAL STABILITY

Source	SS	df	MS	F
Treatments	396	4	99.00	2.59*
Sex	1	1	1.00	.02
Treatment x Sex	136	4	34.00	.81
Within	6327	166	38.11	

*P .05

CONFIDENCE

Source	SS	df	MS	F
Treatments	267	4	66.75	1.76
Sex	2	1	2.00	.05
Treatment x Sex	205	4	51.25	1.36
Within	6273	166	37.79	

PERSONAL RELATIONS

Source	SS	df	MS	F
Treatments	102	4	25.50	.81
Sex	15	1	15.00	.48
Treatment x Sex	33	4	8.25	.26
Within	5183	166	31.22	

HOME SATISFACTION

Source	SS	df	MS	F
Treatments	401	4	100.25	1.63
Sex	1	1	1.00	.01
Treatment x Sex	620	4	155.00	2.54*
Within	10,148	166	61.13	

*P < .05

BROWN HOLTZMAN STUDY SKILLS

Source	SS	df	MS	F
Treatments	597	4	149.25	2.12
Sex	33	1	33.00	.46
Treatment x Sex	636	4	159.00	2.26
Within	11,661	166	70.24	

GRADE POINT AVERAGE

Source	SS	df	MS	F
Treatments	31,485	4	7,871	2.77*
Sex	8,290	1	8,290	2.92
Treatment x Sex	50,062	4	12,515	4.41**
Within	507,426	179	2,834	

*$P < .05$

**$P < .01$

Appendix D

Analyses of Variance for Differences Between Grade Levels

MINNESOTA COUNSELING INVENTORY

FAMILY RELATIONSHIPS

Source	SS	df	MS	F
Treatments	31	4	7.75	.21
Grade Level	16	2	8.00	.22
Treatment x Grades	565	8	70.62	1.94*
Within	5865	166	35.33	

* P <.05

SOCIAL RELATIONSHIPS

Source	SS	df	MS	F
Treatments	138	4	34.50	.43
Grade Level	305	2	152.50	1.90
Treatment x Grades	497	8	62.12	.78
Within	12,876	161	79.98	

EMOTIONAL STABILITY

Source	SS	df	MS	F
Treatments	118	4	29.50	.78
Grade Level	11	2	5.50	.14
Treatment x Grades	53	8	6.62	.17
Within	6060	161	37.63	

CONFORMITY

Source	SS	df	MS	F
Treatments	15	4	3.80	.24
Grade Level	46	2	23.00	1.48
Treatment x Grades	131	8	16.38	1.06
Within	2498	161	15.51	

ADJUSTMENT TO REALITY

Source	SS	df	MS	F
Treatments	278	4	69.50	1.20
Grade Level	76	2	38.00	.65
Treatment x Grades	292	8	36.50	.63
Within	9290	161	57.70	

MOOD

Source	SS	df	MS	F
Treatments	14	4	3.50	.17
Grade Level	60	2	30.00	1.53
Treatment x Grades	89	8	11.12	.57
Within	3155	161	19.59	

LEADERSHIP

Source	SS	df	MS	F
Treatments	11	4	5.50	.29
Grade Levels	0	2	0.00	0.00
Treatment x Grades	106	8	13.25	.70
Within	3033	161	18.83	

HESTON PERSONAL ADJUSTMENT INVENTORY

ANALYTICAL THINKING

Source	SS	df	MS	F
Treatments	158	4	39.50	1.38
Grade Levels	0	2	0.00	0.00
Treatment x Grades	160	8	20.00	.70
Within	4582	161	28.46	

SOCIABILITY

Source	SS	df	MS	F
Treatments	46	4	11.50	.32
Grade Levels	50	2	25.00	.69
Treatment x Grades	389	8	48.62	1.36
Within	5761	161	35.78	

EMOTIONAL STABILITY

Source	SS	df	MS	F
Treatments	396	4	99.00	2.60*
Grade Levels	8	2	4.00	.10
Treatment x Grades	284	8	35.50	.91
Within	6172	161	38.34	

*P < .05

CONFIDENCE

Source	SS	df	MS	F
Treatments	267	4	66.75	1.74
Grade Level	50	2	25.00	.65
Treatment x Grade	287	8	35.88	.94
Within	6143	161	38.15	

PERSONAL RELATIONS

Source,	SS	df	MS	F
Treatments	102	4	25.50	.81
Grade Level	21	2	10.50	.33
Treatment x Grade	197	8	24.62	.79
Within	5013	161	31.14	

HOME SATISFACTION

Source	SS	df	MS	F
Treatments	401	4	100.25	1.57
Grade Levels	123	2	61.50	.96
Treatment x Grades	408	8	51.00	.80
Within	10,238	161	63.59	

BROWN HOLTZMAN STUDY SKILLS

Source	SS	df	MS	F
Treatments	597	4	149.25	2.22
Grade Levels	23	2	11.50	.17
Treatment x Grades	1511	8	188.88	2.82**
Within	10,796	161	67.06	

$^{**}P < .01$

GRADE POINT AVERAGE

Source	SS	df	MS	F
Treatments	31,485	4	7871	2.87*
Grade Levels	12,008	2	6004	2.19
Treatment x Grades	76,633	8	9579	3.49***
Within	477,137	174	2742	

$^{*}P < .05$

$^{***}P < .001$

Appendix E

Means of Boys and Girls for Each Treatment on Each Variable

MINNESOTA COUNSELING INVENTORY VARIABLES

Treatment Group	FR	SR	ES	C	R	M	L
Individual							
Boy	51.0	48.8	49.78	48.3	48.7	50.2	50.2
Girl	48.9	45.3	50.11	51.7	46.9	49.0	49.4
Group							
Boy	50.6	47.4	51.70	50.8	52.7	49.3	49.8
Girl	50.7	45.9	47.20	49.9	48.4	49.5	48.2
Combination							
Boy	50.0	48.7	48.9	49.8	50.6	50.9	50.0
Girl	48.8	47.2	47.2	49.4	46.3	48.2	47.3
Study Skills							
Boy	51.5	50.0	46.4	51.0	51.6	50.2	49.8
Girl	49.1	47.7	48.2	48.8	49.8	48.8	48.8
Control							
Boy	50.0	46.9	49.0	50.5	49.3	50.6	48.7
Girl	51.3	51.4	52.0	50.2	48.7	49.7	50.6

HESTON VARIABLES

	A	C	S	P	E	H
Individual						
Boy	52.0	53.5	49.3	53.0	51.7	53.0
Girl	51.3	53.0	52.7	52.9	50.9	50.5
Group						
Boy	51.7	53.0	51.5	52.5	51.5	53.3
Girl	50.3	54.2	51.8	53.3	54.3	49.6
Combination						
Boy	51.4	51.8	51.3	53.9	53.9	53.9
Girl	51.3	55.0	51.4	53.2	55.2	55.7
Study Skills						
Boy	51.1	52.2	53.0	52.8	50.8	50.2
Girl	52.8	49.2	51.1	50.8	50.2	56.8
Control						
Boy	48.9	51.3	52.1	51.9	51.3	50.5
Girl	49.7	49.2	49.2	50.8	48.8	49.1

BROWN HOLTZMAN

	Individual	Group	Comb.	Study Skills	Control
Boys	56.3	49.4	48.5	51.0	50.8
Girls	52.0	46.8	55.5	53.2	51.7

GRADE POINT AVERAGE

	Individual	Group	Comb.	Study Skills	Control
Boys	214.1	197.9	203.5	227.0	197.0
Girls	238.9	200.7	231.3	231.2	197.0

Appendix F

Means of Grade Levels for Each Treatment on Each Variable

MINNESOTA COUNSELING INVENTORY VARIABLES

Treatment Group	FR	SR	ES	C	R	M	L
Individual							
10	53.0	49.5	50.8	49.9	47.8	50.0	49.8
11	48.3	44.8	49.9	49.6	48.1	49.4	49.7
12	48.8	47.1	49.2	50.3	47.7	49.5	50.0
Group							
10	52.5	47.4	49.3	49.6	53.3	50.4	48.8
11	50.8	47.0	51.6	50.6	52.2	48.1	50.2
12	49.1	46.3	49.8	51.1	48.8	49.4	48.9
Combination							
10	49.0	48.7	49.3	48.3	49.0	50.5	48.5
11	51.8	48.2	47.0	50.6	50.6	49.2	50.1
12	48.9	47.5	48.1	50.4	48.1	49.6	48.8
Study Skills							
10	49.2	53.9	48.9	48.6	54.0	51.2	50.7
11	53.6	48.4	50.6	53.2	51.8	49.8	49.6
12	50.5	46.5	47.9	50.3	48.9	48.8	48.5
Control							
10	49.5	49.3	50.5	51.1	48.2	49.5	50.1
11	49.8	44.5	49.3	48.4	48.2	47.9	47.6
12	51.8	51.2	50.8	51.2	50.1	52.2	50.4

HESTON VARIABLES

	A	C	S	P	E	H
Individual						
10	52.1	52.7	51.9	54.2	51.0	52.3
11	51.4	52.4	49.6	51.6	51.0	50.3
12	51.5	54.6	51.2	53.2	52.0	52.7
Group						
10	49.0	52.7	50.5	53.8	50.7	51.4
11	51.0	54.8	54.6	52.0	54.8	53.8
12	52.4	53.0	50.6	52.6	52.4	51.3
Combination						
10	51.8	52.0	50.5	52.1	53.5	53.3
11	49.0	51.2	48.8	56.0	56.9	53.1
12	52.3	54.8	53.6	53.7	53.7	56.5
Study Skills						
10	51.5	51.9	49.9	52.7	51.9	56.6
11	52.8	45.8	50.2	48.6	48.4	45.6
12	51.6	52.2	54.4	52.8	50.1	52.4
Control						
10	49.8	49.3	51.6	50.8	50.0	50.1
11	50.7	51.5	51.4	51.1	48.0	49.2
12	47.9	50.4	50.1	52.0	51.8	50.3

SURVEY OF STUDY HABITS AND ATTITUDES

	Individual	Group	Comb.	Study Skills	Control
10	56.7	48.7	51.7	47.4	48.9
11	53.6	49.6	48.8	51.6	52.4
12	52.5	47.6	52.0	54.5	51.7

GRADE POINT AVERAGE

	Individual	Group	Comb.	Study Skills	Control
10	201.0	168.5	179.5	199.5	163.5
11	241.3	201.2	207.2	229.0	200.4
12	233.6	222.8	246.1	240.9	211.2

APPENDIX G

Tukey's Test for Comparisons of Means for Pre to Post Testing

MCI MEANS

	FR	SR	ES	C	R	M	L
High ability group	50.76	47.66	48.85	49.76	49.02	49.50	48.38
Low ability group	50.57	46.00	49.62	49.69	48.76	48.33	48.74

Significant Gap Necessary = 2.37

HPAI MEANS

	H	CO	SO	PR	ES	HS
High ability group	51.24	51.78	51.12	52.71	52.19	50.54
Low ability group	50.64	52.16	51.47	52.50	51.43	52.38

Significant Gap Necessary = 3.56

COMPARISON OF BH MEANS FOR PRE TO POST TESTING

High Ability Group	Low Ability Group	t	
51.55	52.69	.64	Not Significant

COMPARISON OF BH MEANS FOR PRE TO POST TESTING

High Ability Group	Low Ability Group	t	
207.14	211.31	.34	Not Significant

Tukey's Test for Comparison of Means of Pre to Follow-up Testing

MCI MEANS

	FR	SR	ES	C	R	M	L
High ability group	51.17	47.69	49.82	50.00	52.43	51.65	48.56
Low ability group	54.00	51.45	52.90	52.75	54.35	50.05	50.20

Significant Gap Necessary = 5.85

HPAI MEANS

	A	CO	SO	PR	ES	HS
High ability group	53.22	48.00	46.74	50.61	45.26	45.43
Low ability group	52.35	48.15	48.00	52.05	49.05	46.50

Significant Gap Necessary = 4.12

Comparison of BH Means of Pre to Follow-up Testing

High Ability Group	Low Ability Group	t	
47.74	47.15	.20	Not Significant

Comparison of GPA Means of Pre to Follow-up Testing

High Ability Group	Low Ability Group	t	
198.30	216.55	1.07	Not Significant

EVALUATION OF COUNSELING TREATMENTS WITH UNDERACHIEVING HIGH SCHOOL STUDENTS

Abstract of the Report

Problem

A basic objective of education in America has long been to assist all students to develop their unique potentialities to a maximum degree. With the present and anticipated shortages of trained technological manpower the major focus of this attention has been upon the gifted underachiever whose talents may potentially be loss to the nation. The National Defense Education Act of 1958 emphasizes the responsibility of the school to the academically talented.

The present study contends that the needs of the nation can best be met through helping youth at all ability levels to realize their potential. It does not minimize the waste of talent as a result of underachievement among the gifted, but emphasizes the waste of talent of underachievers at all ability levels.

The present study concerned itself with underachievement at all ability levels in the secondary school. Underachievement was regarded as the result of a composite of factors which were most easily ascertained through the discrepancy between academic ability and academic achievement.

The school counselor has been regarded as a crucial person in the identification and conservation of talent at the secondary school level. It has been estimated by professional associations and the U.S. Office of Education that only approximately half of the counselors needed, are now available at the secondary school level. It would seem that some consideration needs to be given to how counselors' time could best be spent in the school. The practical problem of how counselors can best help underachievers becomes a crucial one when the amount of time available for any one segment of the school population is considered.

Specifically, the study attempted to experimentally evaluate the effectiveness of four methods of treatment: (1) individual counseling, (2) group counseling, (3) study skills instruction, and (4) group and individual counseling as compared with each other and with

a (5) control group.

For the present study the following served as definitions of the various treatment conditions.

> Individual counseling is a one-to-one relationship in which the counselor works with a student helping him to understand himself and his problems, helping him to learn more productive ways of solving his problems.
>
> Group counseling was where the counselor worked with a small group of students (6-9) and by helping them to talk over their concerns helps them to understand themselves and others, learning better ways of handling their problems.
>
> Study skills instruction was where the counselor worked with a small group of students (6-9) helping them to learn more effective study habits and study skills and to apply these to their school work.
>
> The treatment combination referred to those students who met with their counselor for the individual counseling interviews and in the group counseling setting.
>
> The control groups were those students who completed the same evaluative instruments, etc. but received no treatment, remaining in their study halls.

Objectives

The major objective of the study was to ascertain the relative effectiveness of different treatment procedures in improving academic and personal adjustment of underachieving high school students.

Specifically the following questions were asked:

1. Are treatment procedures related to improvement in academic and personal-social adjustment?
2. Are there significant differences in the relative effectiveness of treatment procedures as related to improved academic and personal-social adjustment?
3. Are there significant differences in terms of improvement when the data are analyzed according to grade, sex, and ability?

4. Are there significant differences in personality variables between underachievers and norm groups?

5. What do underachievers see as their problems?

6. Are there distinctive differences between clients' and counselors' verbal behavior in group and individual counseling?

Sample

The sample was the population of all underachievers enrolled in a public senior high school grades 10 through 12. The school served the total population of a city of approximately 40,000. The school had had a counseling and guidance program for some years.

For the purposes of this study, underachievers were defined as those students who had at least a two decile discrepancy between their mental ability scores on the California Mental Maturity Test and their academic achievement as measured by grade point average. Originally 232 students were identified as underachievers. Some of these students did not return to school in the fall of the year the project began and others dropped out of school during the first month reducing the population in treatments to 207. The population had the following characteristics. The ratio of seniors to juniors and sophomores was approximately 2:1:1, the ratio of boys to girls being 3:2. Forty-four per cent were enrolled in the college preparatory curriculum with only seven percent declaring themselves in either a business or vocational curriculum. The remaining students were enrolled in the general curriculum which tended to be somewhat similar to a college preparatory curriculum. Intellectually the underachievers ranged from 90 to 139 with a mean I.Q. of 109. The discrepancy between ability and achievement ranged from 20 to 75 points with a mean discrepancy of 38.9.

A total of sixteen different counselors participated in the study during the year. The counselors ranged from meeting the standards for temporary certification to meeting those for permanent certification. All of the counselors operated in the school as part of the on-going counseling and guidance program, being responsible to the Director of Guidance in the school. The counselors were identified as part of the school staff and were regarded as such by both students and staff.

Procedures

Since all students in the population were available and all periods of all days were available for treatmentafour stage randomization design was used: (1) types of treatments were randomized into the time and day of week, each treatment appearing six different times, (2) those periods which would serve as treatment periods were randomly selected, (3) the subjects were randomly selected from the students available for that period, and (4) counselors who were available for that period were randomly assigned to each treatment. The study was replicated during the second semester using the remaining students.

The five treatment conditions, defined earlier, were individual counseling, group counseling, combination, study skills, and controls. There were three groups of six to eight students assigned to each treatment condition. During the second semester, because of the drop-out rate, five to six students were in the three groups for each treatment condition with a total of 16 to 18 in each treatment. Students in group counseling and study skills met with their counselor once a week for a school period of approximately 55 minutes. Individual clients met with their counselors once a week for a half period. The regular school schedule and calendar were followed. Duration of treatment was one semester.

To assess change several measures were used. Pre and post evaluation of pupils utilized the grade point average obtained from school records (using only graded courses). Pre grade point average was based on the prior year's average and the post was based on the grade point for the experimental year. To measure the students' study habits the Brown Holtzman Survey of Study Habits and Attitudes (BH) was used. Personality variables were measured by the Heston Personal Adjustment Inventory (HPAI) and by the Minnesota Counseling Inventory (MCI).

To analyze the data concerned with comparing the effectiveness of various treatment conditions on the criterion variables an analysis of variance (groups within treatments design) was used for each of the variables. When significant F's were obtained, the critical difference was used to test pairs of treatment means for significance.

In the analysis of the sub-problems the statistical tests used were analysis of variance, t test, chi square, binomial test, Dramer's extension of Duncan's Multiple Range Test, and Tukey's test for significant gap.

There was a significant difference between treatment means for study habits and grade point average. Individual counseling and study skills instruction showed significantly more improvement than group or control on study habits, with individual counseling being the most effective treatment and group counseling being the least effective. Individual counseling and study skills groups showed significantly more improvement than did group counseling and study skills clients.

On the personality variables as measured by the M.C.I. and H.P.A.I. there were no significant differences between the mean change of the treatment groups. However, the means indicated that clients in the three counseling treatments showed consistent movement in the positive direction. The controls showed relatively more movement in the negative direction than any of the experimental treatments. These findings indicate that type of treatment was related to the degree of improvement.

Follow-up data on the sophomores and juniors substantiated the general trends found on the pre to post measures. The treatments were significantly different on grade point average with individual counseling clients and study skills clients showing significantly more improvement than combination, control, and group clients. The only significant differences between treatments on personality variables were obtained on the pre to follow-up data. The control group had a significantly higher mean on sociability than any of the experimental groups. This was discussed in terms of the non-discrimination value of this variable in differentiating between underachievers and a norm group. On the variable home satisfaction, individual counseling clients and study skills clients showed significantly more improvement than group clients. The means for the comparable scales on the M.C.I. substantiated the above findings. The limitations of the follow-up data relating to the testing situation were presented and should be considered in interpreting the data on personality variables.

In the analysis of the data for sex differences

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and girls were significantly different from the norm sample on the variables emotional stability, adjustment to reality and mood. The results of these comparisons indicated that the underachievers deviated from a norm group on most of the personality variables in the direction of poorer adjustment. The underachievers were also significantly different from the norm group in study habits and attitudes (BH), indicating poorer study habits and attitudes. In general, the composite picture of the underachiever was one who tended toward poorer adjustment except in the area of social relationships.

The analysis made of a random selection of tapes representing group counseling, study skills instruction, and individual counseling (boys) and individual counseling (girls) indicated a significant difference in the types of problems and frequency with which they were discussed between the various treatment conditions. Problems of a personal orientation were discussed more frequently by students in the counseling treatments as compared to those in study skills, and more so by those in individual counseling than in group counseling. The conclusion was made that although the types of problems discussed by underachievers were common to all adolescents, underachievers differed in the intensity and emphasis with which they viewed some of these problems.

The analysis of counselor style comparing individual counseling response patterns with group counseling response patterns indicated counselors varied their style significantly over the series of interviews in terms of frequency of particular response. Each counselor did tend to have a consistent directional movement which was typical to him. Agreeing-accepting comments and asking comments were used predominately by all counselors. Counselors responded differently in individual and group counseling. Counselors tended to use more agreeing responses than expected in individual counseling and fewer in group counseling. Structuring responses tended to be used more frequently in group counseling than in individual counseling. Counselors rarely used responses that were classified as rejecting, disagreeing, and taking responsibility for the client. The general conclusion was reached that these counselors tended to see their role in the counseling interviews as helping clients to make their own decisions, varying their style in terms of the specific client.

The unit on client responses found that the patterning of responses for clients in individual and group counseling were significantly different from each other. Group counseling clients tended to use proportionately more evaluative types of responses, while individual clients tended to use proportionately more social-emotional responses. Individual clients showed two major trends over the period of interviews: an increase in positive emotional response and a decrease in evaluative types of responses. No consistent pattern was found for group clients. The findings of this unit of the study would indicate that individual clients moved in the direction of what other investigators would indicate therapeutic behavior, while this was not evident for the group clients.

In conclusion, the study indicated that there were significant differences in the relative effectiveness of different methods of working with underachieving high school students on some of the criterion variables. In general, clients in the individual counseling treatments and in the study skills group improved significantly more than did clients in group counseling or the control groups on the variables of grade point average and study habits. Clients in the three counseling treatments tended to improve more than study skills or controls on the personality variables.

The results of the total research would tend to indicate the need for high school counselors to consider the use of differential treatments with different clients according to the needs and goals of the clients.